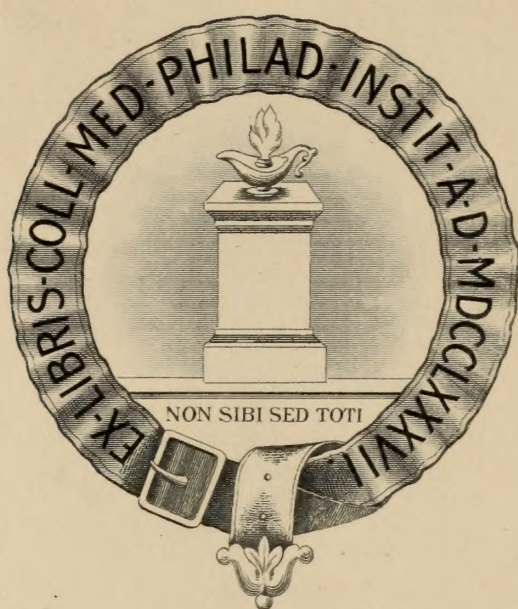




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THE JOURNAL OF OPHTHALMOLOGY OTOLOGY AND LARYNGOLOGY

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EDITORIAL.

SPECIAL EDUCATION.

AS the old rule-of-thumb yacht modeling (under which the Herreshoff reputation was made) has been superceded by scientific drafting, and as medical education has outgrown "reading" with a preceptor, so is the graded course of instruction now being called for in the education of head specialists.

Following the New York Ophthalmic Hospital—at an interval of thirty years—Oxford's ophthalmological degree has come at the psychological moment and gets credit for leading the movement which the University of Colorado has just taken up. Both of these institutions are open to the criticism that their "Doctor of Ophthalmology" represents an incomplete course (as we have before remarked) in that they pronounce the holder a competent expert in the eye without fitting him to relieve ocular conditions by nasal operation, as is so frequently necessary. It may be argued that an exclusivist expects to turn the patient over to another for work in that other's province, but we hold that this D. O.—other things being equal—is not so competent and not such an expert as he who, like the holder of New York's O. et A. Chir., has graduated in a graded course which covers the nose as well as the eye, ear and throat; the latter may specialize in the eye alone, but he has been fitted to understand and meet the nasal conditions which are causative or complicating.

In line with all this, Dr. Burton Haseltine, as president of the American Homœopathic Ophthalmological, Otological and Laryngological Society, suggested in 1911 that "the Society take up the question of proper preparation for special practice with a view to outlining various courses of training for prospective students." This met with approval, and to the end that this advice be intelligent and trustworthy a committee representing various centers was appointed

to report at the 1912 annual meeting; the report of the committee on president's address (which was adopted) recommended that "until such investigation has been made, prospective specialists should be advised to attend the New York Ophthalmic Hospital, as this is the only institution offering a systematic graded course in our specialties."

That report, submitted and approved last June (with directions to report again next year), appears in this issue. As part of the correspondence of Chairman Haseltine, dealing with opportunities for special training outside the United States, three letters are submitted as an interesting supplement to the report.

Dr. Phillips ascribes as the cause of the decrease in students at the N. Y. Ophthalmic Hospital its position between the European centers and the competition of short course places here. To this may be added the fact that this institution is comparatively unknown. As suggested by Chairman Haseltine: "We should hear more of it in our meetings and read more of its work in our journals." Of course this is a matter more immediately for the faculty, trustees and alumni, but it is one in which the whole country has an interest; as Americans we are proud to have the only institution, perhaps in the world, with an organized graded course covering this field as it should be covered.

We venture to suggest that each graduate form the habit of affixing his or her O. et A. Chir. to his papers, if not on his cards, and that the members of its faculty mention that position in the caption of each paper—showing their pride in the institution. This will help keep it in the public eye.

DR. MOFFAT RESUMES.

After a year's enforced vacation the writer is glad to resume his editorial chair and relieve Dr. Palmer of the extra burden which he assumed.

Thanks principally to Dr. Wilfred G. Fralick's Artificial Serum and to an absolute rest in Southern California his recovery was so rapid that to the surprise of everybody he soon returned East, and has located in Ithaca, N. Y., the seat of Cornell University (his alma mater), which makes this little city of 15,000 inhabitants more cosmopolitan than any other of its size.

Our departments will be continued: Current Literature has received the approval of our readers; it will be up to date as possible.

Dr. Rice's enthusiasm and work are making Homœopathic Materia

Medica one of our most valued departments—it can not be spared; we bespeak even more support for it.

The Journal Clinic is nothing if not practical. We appeal to the profession to support it—even if only on postal cards; we dread the scissors and paste pot more than can our readers.

After a dozen years' effort we are glad that our 1912 volume puts the N. Y. Ophthalmic Hospital in touch with its alumni. It will not be our fault if it does not from now on make them ever more interested in and proud of their alma mater.

Doctor of Ophthalmology. The University of Colorado is now giving a course for the degree of doctor of ophthalmology similar to that of Oxford. The Denver course embraces one year of postgraduate in ophthalmology, including daily service in the eye clinic; a course of reading; attendance on demonstrations, lectures, quizzes and conferences on the refraction of the eye and its anomalies; the pathology, diagnosis and treatment of diseases of the eye; ocular injuries and operations. The whole course may be taken at Denver; six weeks' residence is required, but the clinical work may be done in any ophthalmic hospital or clinic having proper facilities.

Graduates of at least one year's standing from a recognized medical school, who show evidence of the necessary study of algebra, geometry, plane trigonometry and physical optics, and who have taken the full course, including six weeks' residence work (6 or 7 hours a day) upon passing a general examination on scientific and practical ophthalmology, and upon presenting a creditable thesis within six months thereafter and defending the same, will be eligible for the degree of Doctor of Ophthalmology from the University of Colorado. Matriculation fee \$10.00, instruction \$30.00, examination and diploma \$10.00.

REPORT OF THE COMMITTEE ON SPECIAL EDUCATION.

To the President and Members of the Society:

In the interval since our meeting of last year the members of your committee have given serious attention to the subjects upon which they were asked to report. For this purpose they have by personal correspondence and by interviews obtained the opinions of a large number of successful specialists representing every part of the United States and several foreign countries. They have also visited the leading institutions where special training is obtainable in the principal cities of America and have compared the various courses offered.

It has not been possible for the committee to confer frequently but it is believed that upon the most important questions their opinions coincide.

The committee believes that there is great need for a more uniform standard of special training in this country and a standard considerably higher than at present prevails. It believes that this society and other similar organizations should aid in improving this standard by specific recommendations as to what may be considered suitable courses of training and, whenever possible, by corresponding membership requirements. It also believes that societies of this kind could establish closer relations with postgraduate teaching institutions with great mutual advantage.

The problem of a higher standard of training is one beset with very great difficulties. One is the wide variety in the needs of individual practitioners; quite different is the training required by the consulting specialist from that needed by the general physician who only treats the simpler cases occurring in his own practice. Another difficulty is the entire lack of uniformity among teaching institutions as to arrangement, character and length of courses. The amount and character of training which the special student receives as well as the order in which he receives it is left chiefly to him in almost all American post-graduate schools; short courses, chiefly clinical, cheap and superficial are therefore too often chosen in lieu of thorough training.

For the purpose of furnishing some general guidance to those contemplating special practice the committee has considered the following questions:

1st. Should the student be encouraged to specialize in his undergraduate course?

No. At least not during the four year medical course as at present given. If a fifth hospital year be added to the present requirements a certain selection may naturally and properly begin as to the particular field of work to receive closest attention. But we question the wisdom of "elective courses" in undergraduate work as tending to impair the solid foundation of general education that we deem essential to the most efficient special training.

2d. What amount of general experience after graduation would you consider a safe minimum as a preliminary to entering upon the courses leading to the practice of the specialty?

Two to five years, according to the nature of the experience, with the following as suggested equivalents:

(a) Two years of interne service in first class hospitals covering general medicine, general surgery, neurology and the infectious diseases.

(b) Eighteen months such hospital services followed by one year of work as associate in private practice with opportunities for wide experience.

(c) One year such hospital service followed by two years of such experience in private practice.

(d) One year association in private practice followed by three years of general practice without such association.

(e) Five years in general practice without hospital experience or private association.

3d. How much time should be devoted to the special study following this general experience:

(a) One and one-half to three years.

(b) One-half year systematic graded didactic and clinical instruction and one year service in special hospital or as associate in private practice of a specialty.

(c) One year such instruction and one year in special clinics.

(d) Three years in special study and practice where consecutive graded courses cannot be obtained.

These may be modified and somewhat shortened for students who desire to specialize in ophthalmology alone or in otology and laryngology or other subdivisions where such are preferred.

4th. What courses, and in what order, are suggested as preparation for special work?

OPHTHALMOLOGY.

Anatomy and physiology of the visual apparatus including the neurology of the visual organs.

Principles of optics and mechanics of refraction.

Ophthalmoscopy and retinoscopy.

Methods of examination, perimetry, etc.

External ophthalmology.

Histopathology of eye diseases.

Ophthalmoscopic diseases and muscular anomalies.

Operative ophthalmology.

EAR.

Anatomy and physiology, including neurology of auditory apparatus

Methods of examination and functional tests, including the labyrinth.

Pathology of ear diseases and associated pathology of throat and nose.

Otological diseases, including intracranial associated conditions.

Operative otology.

NOSE AND THROAT.

Anatomy and physiology of nose, throat, larynx and accessory structures, including nerve supply and physiology of voice production.

Gross and microscopical pathology of diseases involving these organs and relation to general pathology.

Methods of examination, including radiography, transillumination and bronchoscopy.

Rhinological and laryngological diseases.

Operative rhinology and laryngology.

These suggested courses are didactic and theoretical, being objective only so far as they may be illustrated by mechanical devices, specimens, cadavers, etc.; they must of course be supplemented by actual clinical work to the greatest possible extent. Furthermore, recognizing that our specialty represents the art of medicine in its highest complexity the committee considers that an apprenticeship in some form is an essential part of the most efficient training.

5th. Is it better for the American student to begin his special study in this country or to go at once to a European center?

The answer to this question represents a wider range of individual opinion and must depend more than any of the others upon the personal situation.

The preponderance of opinion still is that where time and means are ample the American student does well to begin his special training abroad. The courses there are better organized and on the whole more comprehensive and thorough. But the number of notable exceptions is all the time increasing and with intelligent direction it is possible to obtain a very complete training in this country alone.

Order, system and thoroughness are more important than geography in work of this kind. For the sake of these qualities the committee advises that each student include as part of his training from six to twelve months of didactic instruction in an institution giving systematic graded courses. The opportunities for such instruction in this country are exceedingly inadequate but the need is clearly recognized and efforts to supply it are being made.

DENVER.

The University of Colorado has this year established a one year course in ophthalmology, including consecutive courses of study with lectures, demonstrations, laboratory courses, clinics, etc. This course is at present in what we may call an experimental stage and is naturally incomplete, but if successful it will be amplified and will be made to cover the field of otology and rhinology.

CHICAGO.

The urgent need for better special training has long been felt in Chicago and various efforts have been made to provide it. Nothing proportionate to the need has as yet been accomplished.

The University of Chicago offers to limited numbers at certain seasons didactic courses on special anatomy and physiology that can hardly be surpassed, but their very excellence makes more apparent the gaps as yet unfilled.

The Postgraduate and the Polyclinic offer excellent clinics but no systematic courses.

The Chicago Eye, Ear and Throat College with its hospital furnishes clinical instruction of a high order with material in abundance, but the length and character of courses are left almost wholly to the student and there is nothing resembling graded didactic training.

The Andrews courses, privately conducted, are the most complete to be had in Chicago; taken with the clinical opportunities of several institutions these provide a passable training.

The Illinois Charitable Eye and Ear Infirmary maintained by the

state is the largest of its kind in the west and with its very efficient staff is doing a large amount of high grade work. By an intelligent use of its materials it has accumulated one of the finest collections of pathological specimens in America. Here as elsewhere however the incubus of political control has prevented the use of this vast material for systematic teaching. A limited number of internships in this hospital are obtainable by competitive examination and this service is of course extremely valuable.

A large amount of good work can be seen in the special clinics of the various undergraduate schools but there is no instruction calculated to prepare students for exclusive practice.

Personal reports upon the situation in Cleveland, Boston and Philadelphia will be made by the members of the committee representing these cities. Dr. Mackenzie has been asked to speak particularly of the courses that he and his associates have recently organized; the committee visited Philadelphia and were greatly pleased with the thorough graded instruction which these courses provide. Splendid opportunities for clinical observation are provided at the Philadelphia Polyclinic and at the Wills Eye Hospital but the lack of ground work training is here observable as elsewhere.

NEW YORK.

New York city is of course preëminent among the cities of this country in opportunities for training in our specialties. The clinical opportunities are very great and the arrangement is such that the student has little difficulty in obtaining clinical instruction probably unsurpassed. Even in New York however the facilities for graded didactic instruction are by no means adequate.

The New York Ophthalmic is the only institution having an organized course covering the field of ophthalmology, otology, rhinology and laryngology as they should be covered. The plan of this college comes nearer, we believe, to meeting the demands for modern instruction in these specialties than perhaps any other in the world.

The committee consider that the relation of this school to our profession is a matter worthy of especial consideration. It is well known that the demand for practitioners of ophthalmology-otology of the homœopathic school in nearly every state is greater than the supply. It is true also that a considerable number of homœopathic graduates each year are entering upon the practice of these specialties; at present

practically all of these are going to allopathic institutions for their training. The graduate student like his younger brother is prone to follow the crowd and this often ends his affiliation with homœopathic institutions. Knowing that our own special school offers in its scope and plan a better training than any other your committee has sought to find the reasons for this situation.

In its efforts to become better acquainted with the New York Ophthalmic it has been most cordially aided by all connected with that institution. By invitation of the Board of Trustees the committee visited the college and hospital and were given every opportunity to become familiar with the work done there. As a result of this visit the committee feels more keenly than before that with our growing demand for special training a school with such possibilities ought not to be running without students. Your committee does not presume with its meager knowledge to discuss exhaustively the work of this great institution. Some of its observations however it believes are worthy of consideration.

The New York Ophthalmic offers without doubt the most complete graded course of special instruction to be found in America. Its standards of scholarship are high and its diploma is a guarantee of thorough work. It has clinical material in abundance handled by a staff of the highest efficiency and its material equipment, while not all that could be desired, is sufficient for excellent work. With relatively few changes this institution could accommodate twenty-five students and give them a training superior to that obtainable elsewhere in this country.

One or two improvements seem obviously needed. There should be better provision for teaching the most recent additions to special knowledge as illustrated in modern radiography, labyrinth physiology, etc.

The committee believes that there should be short courses offered for established specialists who may wish to devote a few weeks to work in particular branches. Most progressive practitioners spend a few weeks of each year in studying the new development in our art and a school like this should be the place to do so; it should be a place where new additions are being made to special knowledge, or at least where an authoritative opinion may be had as to the value of those made elsewhere. More important than material equipment is mental stimulus; the spirit of research is a great magnet to attract students.

There is little evidence at the Ophthalmic of an effort to improve

upon the methods of the past. The school is resting too much upon its good record and not making its share of new contributions. There is apparently a lack of familiarity with much of the recent work done elsewhere. These are important factors and they partly explain the difficulty complained of by the staff in getting new men to fill assistantships. These positions should be made more attractive and some system of rotation provided that will give greater elasticity to the teaching body. When teachers of twenty years' experience are doing the daily routine work of clerks and internes the instruction loses something of its force and quality.

Finally there is need for closer acquaintance between the institution and the members of our profession throughout the country. Very many of our special men scarcely know of its existence and few really appreciate its excellence. We should hear more of it in our meetings and read more of its work in our journals. We should send it our students and it should meet them with cordiality.

If the work of this committee does nothing more than promote such a closer acquaintance the time will have been well spent.

BURTON HASELTINE, *Chairman*,
W. H. PHILLIPS,
DAVID W. WELLS,
GEORGE W. MACKENZIE.

W. H. PHILLIPS: The members of this committee were chosen from different parts of the country to present the facilities for the education of specialists in all sections. We may dismiss Cleveland in a few words: there is not in Cleveland any systematic effort to train men for special work. There is occasionally a short course given, with perhaps two or three clinics and lectures upon special subjects but not with the idea of turning out any specialists. That city may be eliminated from consideration so far as this is concerned. I have felt as Dr. Haseltine has said he felt in regard to the New York Ophthalmic: as it is the only institution offering any opportunity to a homœopathic student or graduate who desires to enter a specialty without going outside the school, therefore it should receive generous support from all our colleges. I was much delighted to meet Dr. Haseltine in New York and see exactly what the situation there is. I had visited it in times past for a few days. We found that it offers a course not to be equalled anywhere else in this country for the education of one desiring to become a specialist. The graded course is not given anywhere else. Notwithstanding this, there has been a gradual loss of students until at present, or at the time of our visit, there was only one student

there. Now there must be a reason for that decline. The only answer to the problem that I can see is that it stands as it were between two fires; it has not attained to the strictly modern course of the European institutions and it has to compete at home with institutions that offer a two, three or four week course.

There are two classes of men who have to be taken into consideration: one class go to get a superficial training so that they can attend with a little more understanding to the diseases of the eye and ear that come to one in ordinary general practice; the other class consists of those who want a complete special training. The latter are apt to avoid the New York Ophthalmic and go to Europe for their education. Thus the New York Ophthalmic is too good for one class and not good enough for the other; that is why it has lost students. It seems to me that it must either conform to what is general in this country and give shorter courses or, if it is going to continue the graded course, it will have to advance and give as good as can be obtained abroad. At our visit there we found a half dozen men well along in years doing routine clinical work that might just as well be delegated to assistants. It consisted of refraction work, examination of cases and local applications—they were spending two or three hours a day in this way. And for what? No students there to profit by it; not adding anything to the science of medicine. Little is done there that is really advancing our special work.

The committee believes that this is wrong. There are plenty of good men there, and with the graded course, which appeals to the committee and to this society, the school should receive the support and encouragement that is necessary for its continuance. With proper effort upon its part and ours I believe that we could fill up the school with our students.

DAVID W. WELLS: I was not able to attend the meeting of the committee in New York but I went over the subject in Boston. The Boston University School has given some postgraduate courses in the specialities but it was decided that we are not in a position to give regular courses. We have no intention to turn out specialists but merely to accommodate men in general practice who want to freshen up on the subject of the diseases of the eye, ear, nose and throat. In ophthalmology we offer a course of six weeks, devoted mostly to clinical work. Students are taught refraction and their reading is directed; in addition they are given an opportunity to see and do clinical work. The charge is twenty-five dollars for the six weeks. Quite a number of them have their interest excited in the subject and want to continue their studies; such ones are given subordinate positions in the department. Prof. Payne offers a course in operative ophthalmology next winter.

In Harvard there is no course offered for the training of specialists. The fourth year the student may select what he wants to follow and

whatever he does counts toward his whole work. The courses are extensive but are not well correlated; it is simply an extensive *ménu* from which any man may take his choice. The separate courses are good in themselves and include both theory and practice, but there is no such thing as a graded course. There is no course in refraction offered. In otology the instruction is mainly clinical in response to the usual desire of graduates, but the opportunity is also offered for the direction of reading on the part of the student and for quizzes during the course which he takes. These arrangements are made with the individual instructors upon the basis of the courses offered by them and published in the pamphlet issued by the Graduate Department. The customary advice given to a student who wishes to devote himself especially to otology covers a certain amount of assigned reading, a study of anatomy of the temporal bone by means of the bone boxes provided for that purpose, and an allotted amount of clinical work, according to the time at his disposal; this clinical work includes special training, by the instructor to whom the graduate is assigned, in methods of examination, of case taking, of reporting and, progressively, of manipulation in treating patients in the Out-patient Department of the Massachusetts Charitable Eye and Ear Infirmary.

Boston is ambitious to become a great medical center and there is now in course of erection adjoining the new Harvard Medical School buildings a hospital whose relations will be in accordance with a very comprehensive plan, so that there will be in the near future in Boston something that will meet this growing need.

I concur in what the other members of the committee have said in regard to the advantages which we have in such an established institution as the New York Ophthalmic. It is only necessary to correct its defects to make it a highly valuable school for the study of our specialties.

G. W. MACKENZIE: I have no particular report to make except as to Philadelphia. We have there what is claimed to be the best graded postgraduate school in the country, the Polyclinic. It is an old-school institution. Students who attend it coming from other institutions claim that it is better than any other. My wife and I spent nine months there as students and we found it satisfactory as far as it went. They do not have a systematic graded course except in muscle and refraction work, but in that kind of work they are certainly excellent. I do not believe that anyone can get a better course in this country in refraction and muscle work than is given at the Polyclinic in Philadelphia. In saying that however I do not mean to imply that it is anywhere near the standard of the European schools for the teaching of our specialties. I am sure that I learned more in one month at Vienna than in the nine months at home.

There is an energetic man in Philadelphia by the name of Skillern who is much interested in postgraduate work. He has published a

work on accessory sinus diseases. He started to give a postgraduate course on his subject and soon found that the men who came to Philadelphia for his work desired similar courses on the ear. He came to me for help and I consented to take the ear end of it. We try to cover in a practical way the whole subject of the ear, nose and throat. We have met with considerable success and those who leave us are satisfied that they are getting better instruction than they had been getting elsewhere. We use anatomical specimens and the microscope, giving the anatomy and histology of the parts. We give the indications for every operation and perform them on the cadaver. Each student is given opportunity to perform the operations with criticism from the teacher. We are getting a good many students, having had something like forty last year. The time spent at the work is optional with the student. We charge twenty-five dollars for twelve hours. The student may take as many hours as he pleases.

Among the facilities for instruction in the specialty of ophthalmology in Philadelphia we have the Wills Eye Hospital. By securing the position of an interne there, one can get a very wide experience in eye diseases, particularly in the bacteriology of the subject. I understand from one who was there recently that he had more work than he cared to handle and an immense amount of responsibility was upon his shoulders. He was given an opportunity to perform several operations during the year.

PRESIDENT SUFFA: What is your pleasure about this paper?

GEO. A. SHEPARD: I think that the report should be accepted and the committee continued in order that it may continue the work so well begun by giving advice not only to the society but also to the institutions concerned.

E. J. BISSELL: It would be a good thing to gather together the work of this committee and other similar material and give an evening to the discussion of the subject next year; that would be in line with our president's address last year. It is a matter of great importance.

R. S. COPELAND: I move that the spirit of the report made this morning by the Committee on Medical Education be adopted as the sentiment of this society and that the committee be continued with instructions to communicate to the interested institutions the result of their investigations and to make a further report next year. The motion duly seconded was carried.

SPECIAL TRAINING IN VIENNA.

COMMERCIALISM characterizes the conduct of clinical teaching at the University of Vienna, at least so far as alien students are concerned. With the exception of a brief vacation interval, during which a part of the teaching staff is given leave of absence for rest and recuperation, any and all courses in every branch of medicine and the allied sciences are "on tap" constantly. By this, I do not wish to imply that all courses are in progress at all times, for this would be manifestly impossible, not only for lack of facilities, material and instructors but for the far better reason—lack of students to fill all these courses. What I mean is that every month in the year any course covering any branch or subdivision of medicine or the specialties may be had, provided there is sufficient demand for such course. Naturally the complexion of the work is constantly changing with the influx of students and to meet the wish of those resident.

The "initiative" in arranging for a course may come either from the professor or instructor or from any student desiring such a course. The "referendum" consists in posting the proper notice of this course by such professor or instructor upon the stated subject, to begin on the first day of the following month, to continue the stated number of hours at a stated cost, the class being limited to the stated number of students. Such notices are exposed on bulletin boards in conspicuous places awaiting the signature of prospective participants. A definite number of students is required in order that the course shall be given; in other words the instructor, docent, assistant or professor who holds the course must be guaranteed a certain minimal stipend, otherwise the course is dropped and those who had signed for it either annex their names to a similar course by another functionary or await a more favorable time. If their demand be sufficiently urgent and their purse amply resourceful, they may engage the course themselves by increasing the individual tax sufficiently to meet the requirements. Finally, if a student prefers and can pay for a private course he may so arrange at almost any time.

When a course is oversubscribed, the excess of names forms a nucleus for a similar course the following month, each name being

taken in its order on the posted list; thus it happens that the more popular courses have an almost continuous waiting list so that premiums are sometimes offered "for place" and the less favored rival courses relieve the congestion by capitalizing the American haste to have the work and be gone.

In this manner, new courses are being constantly posted for the work of the following month so that incoming students can join certain classes upon the day of their arrival and put in their spare time attending operative clinics, which are open to all, and in visiting other classes. One visit is permitted at all classes and lectures. Finally the enormous outclinics, which are in progress constantly, offer excellent opportunities for any leisure at the disposal of the new-comer.

As to the nature of the courses offered, it may be said they differ but little from those of any other postgraduate institution with the exception of certain special courses which are posted only at intervals and usually bespeak the arrival of a coterie of older heads, men who have been in practice for many years and who come to compare notes on the finer points of diagnosis or surgery. As examples of courses may be mentioned: Histopathology of the Eye, Ophthalmoscopy, External Diseases, the Eye Muscles, Surgical Technique, etc., and the ear—Functional Testing and Diagnosis, Anatomy, Surgery (on the cadaver), Nystagmus, Surgical Complications, etc.

Histopathology of the eye comprises a course of very exhaustive lectures supplemented by a microscopic study of specimens. The latter are passed out, a few at each hour, are stained and mounted by the student, diagnosed by him (provisionally), corrected by the professor in charge, described in detail in the student's notes, labeled and filed away as his own. Courses in ophthalmoscopy are both inductive and deductive, the former by way of lectures and reviews, the latter by actual examination of patients by the student who reports to the instructor his findings, his diagnosis, the reasons for the same and is then either confirmed or corrected or further quizzed by the instructor. The courses on external diseases of the eye are likewise both clinical and didactic, the latter consisting of the assignment of cases to certain students for examination, diagnosis and demonstration to the class with incidental quizzing, correction and remarks on the part of the instructor. The course on eye muscles is entirely a lecture course with demonstration of cases by the lecturer. The surgical eye

course consists of a series of practically all modern approved operations on the eyeball performed under the personal direction of the surgeon upon sheep's eyes.

This brief description may serve to give an idea of the nature and extent of the work undertaken. Most courses run twenty hours, a few are shorter, *e. g.*, Intubation and Tracheotomy, some longer, *e. g.*, Cadaver courses (owing to the uncertainty of supplying the necessary material).

O. E. IBERSHOFF,
Cleveland, O.

THE AMERICAN MEDICAL ASSOCIATION OF VIENNA,
ORGANIZED FOR THE SYSTEMATIC PROMOTION
OF INTERNATIONAL POSTGRADUATE STUDY.

Vienna, November 15, 1912.

BURTON HASELTINE, M. D.

Dear Doctor: You have asked me to write you something of medical Europe and I will gladly tell what I can, mentioning that, for technical and complete information as to courses here in Wien, the Blue Book issued by the American Medical Association of Vienna should be consulted. (This little book can be obtained by addressing the association and enclosing stamps for postage.)

I have just listened to a remark made by a gentleman who has been here eleven days: "I would rather spend a thousand years in New York than five minutes in Vienna." I have no doubt he felt just that way, for the first few days in a foreign city which has been pictured in its rosiest colors with all of the discomforts left out, is full of disappointment. But if one is patient and will remember he is not in America, that he has come to Wien for work and not for pleasure, that man can certainly accomplish more here in less time than any other place in Europe.

Three essentials for successful postgraduate work are (1) abundance of clinical material, (2) capable men willing to make the sacrifice of private practice for the sake of teaching, (3) some stable organization to map out the work and bring together the instructors and the postgraduate student.

The two million population of Vienna and two hundred thousand patients treated in the Allgemeines Krankenhaus (all subject to clinical

use and postmortem in case of death) with the fact that this is only one of many hospitals in the city, assure an abundance of material. The work of men such as Hirsch, Alexander, Ruttin, Neumann, Barany, Meller, Lindner, Hajek and many others answers the second requirement; the third will need no reply other than reading the Blue Book.

The cost of instruction ranges from \$0.50 to \$0.60 per hour in classes of ten to \$6.00 an hour for individual instruction. Living expenses in Vienna are high and some home comforts, such as steam heat, are not to be secured at any price. Some ambulatorium work is free but should be preceded by enough instruction to make the magnificent material passing through one's hands of value.

To give a concrete idea of the amount of work now going on in the department with which I am concerned, I will say: in November we have 40 hours of ophthalmoscopy, 40 hours of external diseases of the eye, 30 hours of refraction, 20 hours of operations on the eye, all in English. Four hours of operative work occur each day and all postgraduate students are welcome. Beside this a great amount of individual work is being done. For those who speak German in that language there is about as much more. The departments of Nose and Throat, and of Ear offer fully as much.

I would advise anyone coming to Vienna for medical work by all means arrange to arrive here on the 25th of the month; most of the courses start on the first of the month and one should be here before that date. Come directly to the American Medical Association and there every assistance will be offered the newcomer to get settled and find the work that he desires.

Trusting this may be of service, I am,

Yours truly,

WILL O. M. BELL.

AMERICA COMPARED WITH EUROPE.

Philadelphia, March 29, '12.

DOCTOR BURTON HASELTINE,

My Dear Doctor:—Your letter of January 19, 1912, received and carefully studied. I congratulate you on your bravery in taking the initiative in a problem so big and important as that of making better the eye, ear, nose and throat specialists in America. You may count upon me as one who will lend every possible aid to help you in your worthy endeavor.

I shall attempt to answer your questions to the best of my ability. As you are probably aware, I am very much interested in the problem you have taken up and necessarily have given it considerable attention. My replies will be based upon postgraduate experience as a student in this country and in Europe and also upon numerous conferences with fellow students of equally wide or wider experiences.

The first question which suggests itself is: Are the eye, ear, nose and throat specialists of America inferior, equal or superior in ability to those of other countries?

Taking up the question of the eye specialist, I believe that the eye specialists of America show more skill in the treatment of refraction and muscle errors than is shown by eye specialists of other countries not excepting England. Since the treatment of these conditions comprises, at least four-fifths of the total work the eye specialist has to do in his practice, it becomes an important factor as to where the postgraduate should get this part of his training.

So far as the more common operations are concerned, surgery of the eye is performed in this country with a skill quite equal to that done in any other country. There may be however some rare conditions operated with more daring in other countries than in America.

I believe that the diagnosis of external diseases of the eye and of fundus diseases is made with greater precision in Vienna and other Austrian and German University cities than in America.

Pathology of the eye is studied more thoroughly and is better understood in Europe generally than in America. A knowledge of the diagnosis and pathology is a very important factor in the practice of the eye speciality. For instance, granting that America and Europe are on a par with each other in surgical skill and technique, a superior knowledge of the diagnosis and pathology possessed by the Europeans would give them a considerable advantage over the Americans in the treatment of surgical diseases of the eye, from the fact that good surgery is determined, not alone by the ability to operate, but by a combination of this ability with a knowledge of diagnosis and pathology.

Coming to the question of the comparison of the ear specialists of this country with those of Continental Europe, I would say that the latter are generally better qualified than we. Their superior knowledge of the physiology and pathology of the ear I believe to be generally admitted. In general diagnosis of ear conditions and the speical

diagnosis of the surgical ear diseases, with their complications, they are decidedly more advanced than we. The same may be said of their operative ability. In original research work the Austrians lead the world, while the Politzer school holds the laurels. I cannot recall any branch of the subject of otology wherein we equal or excel the Europeans. No one who has studied the literature of the subject, especially that of the last ten years, can doubt the truth of this assertion.

Concerning the nose and throat specialists, the work of Zuckerkandel on the anatomy of the accessory sinuses, of Hajek on the diagnosis of the accessory sinus diseases, of Killian and Hajek on the operations on the septum and accessory sinuses, or Kocher and Chiari on bronchoscopy and laryngeal surgery, are ample evidences of the superiority of the Austrian and German nose and throat specialists over the American.

The works of the above mentioned men in rhinology and laryngology are as epoch making as are the works of Politzer, Zaufall, Panse, Kœrner, Bezold, Alexander, Barany and Neumann in otology. Let it not be understood from what has been said that I wish to detract in the least from the glory and greatness of some of our own eminent specialists.

The second question which suggests itself is: Can the postgraduate student of eye, ear, nose and throat diseases get as good training in America as in other countries? Excepting refraction and muscle work, particularly as taught in the Philadelphia Polyclinic by Thorington and Reber, my reply is, No.

In Vienna, Berlin, Paris, Rome and many of the smaller University towns of Austria and Germany, the postgraduate student can get, on the whole, a far superior training than he can in America. This statement I believe will be supported by the vast majority of those who have studied any length of time at both places—home and abroad. Furthermore, if it were not so why do so many Americans go to Europe for the study of these specialties. It cannot be said that they go for prestige, for in this day of advancement prestige must be supported, as never before, with knowledge and ability.

There is a small minority of men, however, who go to foreign countries not knowing the language, become discouraged after a few weeks, return to America and claim that Europe is not ahead of America in opportunities for postgraduate study. My reply to this is that they

are less able to judge than those who have spent a much longer period abroad.

My candid advice to a young man about to prepare himself as a first class eye, ear, nose and throat specialist is to study abroad; preferably at one of the larger University towns in Austria or Germany, remembering however, that he is to get his refraction in England or America.

I have been so convinced of the truth of these statements that I have sent at least ten men to the Philadelphia Polyclinic for refraction and muscle work and to Europe for the balance of their studies. They were all men who came to me for advice. They all followed this advice and none have regretted it.

There are many reasons why Continental Europe excels America as a place for postgraduate study of eye, ear, nose and throat diseases:

1. I have already referred to the fact that they are generally more advanced than we are in the knowledge of their subjects. If a vote were to be taken by those best able to judge, I believe it would be overwhelmingly in favor of them. Granting, for the sake of argument, that this is not so, still they have other advantages which would place their schools ahead of ours; to these I will refer below.

2. The continental teachers as a rule appear to be born teachers. They are more fond of teaching than we. They are enthusiastic. They are artistic and naturally good illustrators. They grow up or develop in an atmosphere which stimulates and fits them for teaching. For instance, let us take the original Politzer ear clinic, which is a fair example of all the others. Politzer is a man who possesses great knowledge and wonderful ability as a teacher, besides he speaks many languages and is a graphic illustrator. During his term of service there were many eminent professors and docents turned out of his clinic, including Bing, Pollak, Hammerschlag, Frey, Alt, Alexander, Neumann and Barany, all excellent teachers. These men owe a great deal to Politzer whose virtues and qualifications became contagious, so to speak, so that all who came in contact with him acquired some of these virtues and qualifications. Politzer was the chief of the first ear clinic of Austria because of his fitness to fill the chair.

Every one of the eminent men above referred to began at the foot of the ladder, entering the clinic as an aspirant assistant. After a term of a few years when their work fitted them for promotion, they became full assistants and in time first assistants with the privilege of

teaching. Next, because of their original contributions to the science of otology they were made docents by the government, and finally because of still greater efforts were made professors. In other words the merit system alone governed the promotion.

Given the fittest possible chief, together with the full play of the merit system to stimulate them, there can follow but one result, namely, a list of great teachers full of the competitive spirit for excellence. Furthermore, since the revenue from teaching often exceeds that which they receive from private practice it becomes an additional stimulus, for those who can, to teach.

3. Government control of the universities with the application of the merit system has made possible the Politzer clinic, and also all the other great clinics of Europe. I might add that the government control has centralized the hospitals to better advantage than they are in this country. The whole scheme is one great, big, smooth working system for the purpose of education on the one hand and the treatment of the poor on the other. Complete government control of the hospital and teaching institutions of Europe has resulted in the acquirement of equipment which far excels anything we have in American institutions, unless it be those very few which are richly endowed.

4. The greater number of charity patients in Europe affords a greater amount of material than is afforded us here in America. This is no small factor with which to reckon.

5. The opportunities for the study of pathology are greater in Europe than in America. In most of the hospitals where charity patients are accepted for treatment the privilege of post mortem examination in the event of death is granted upon admission. This affords a most profitable opportunity for study and research; besides it affords a wealth of material for teaching.

My attempt thus far has been to outline what appeals to me as the best course for the prospective eye, ear, nose and throat specialist to pursue, should he desire to become a first class specialist in one of the larger cities of America. This course has however some disadvantages that must be considered.

I. The expenses. Among these must be considered traveling expenses to and fro; and if the postgraduate be a man with a family, this part of the cost is multiplied in proportion. Living expenses in Europe are quite as high as in this country. The actual cost of the courses is on a par with or perhaps a trifle less than in this country.

II. The language. One must know the language of the country in which he studies. It is true that in Vienna, where they cater to American students, one can get good courses in English but the very best are given in German. If one does not know the language, some of his time that could be spent in medical studies must be spared for the study of the language or else he must stay correspondingly longer to get all that he requires for his medical education. A knowledge of German or some other language is an advantage for when the student returns to America he is in a better position to keep posted through being able to read the journals than the fellow who has not this knowledge.

III. Time. This is an important item to many; its value is oftentimes greater than actual money. There are many who get but short snatches of time to spare from their work, say a month or two at a time every two or three years, and would welcome the superior opportunities of European study but must forego this because of the time consumed in travelling.

The objections which I have raised do not apply to the young fellow who may be fortunate enough to have plenty of money and time; but they do apply to the less fortunate. What we all earnestly desire is superior opportunities nearer home for the ambitious fellow of moderate circumstances.

There are other methods of acquiring a good training in the eye, ear, nose and throat specialties but I know of none so good as that which I have outlined.

We all know of some first class specialists who have been developed in this country without a foreign education. Some of these have acquired it through being associated as an assistant to an excellent teacher. If an assistant applies himself diligently to the task and stays long enough with his chief he will, provided his chief is communicative, absorb from him all or the most that he knows.

Another method is for the applicant to take postgraduate courses in America followed up with service as a resident in some good hospital for the treatment of these diseases. I know of one young man of West Virginia who has been following this course putting in from twelve to fourteen hours a day in the Wills Eye Hospital as an interne and other hospitals in Philadelphia as assistant besides managing to take an occasional lecture. I have not the least doubt but that he will be successful. The biggest factor however in this young man's

case is his ambition. He is finding a way. Application even with less opportunity surpasses indifference with greater opportunities. The fellow who accomplishes at home what it requires most of us to accomplish abroad, with the superior opportunities afforded, may be termed the selfmade man. He is exceedingly practical and self reliant as compared to the fellow with the foreign education who has simply attended the courses without doing the practical work.

This brings me up to another question. How much time should be spent in postgraduate work to make a first class specialist? I believe a student should spend at least one full year if not more with his studies, subsequently adding to this at least six months of practical work in a first class clinic, either at home or abroad.

Concerning your question of minimum requirements I cannot answer this question satisfactorily, for the most we can learn proves, so often, too little.

Concerning your question of how much training in homœopathic therapeutics one should have along with the purely special training? My answer is—very little if any, for several reasons: first, the more time he puts on homœopathy the less he can give to his study of the anatomy, physiology, pathology, diagnosis and mechanical treatment of the special organ he is studying. Secondly, since there are no specifics in homœopathy the attempt to find them would be unhomœopathic. The true homœopath bases his prescription on the totality of symptoms, after he has first ascertained and removed the cause. He can select the internal remedy without any technical knowledge of eye, ear, nose and throat diseases and oftentimes accomplishes better results in certain cases than we who claim to be fair specialists. Thirdly, homœopathy is a specialty in itself and should be studied separately and as scientifically as our other specialties. I believe the time has arrived when we specialists should occasionally send our cases that we fail to cure to a specialist in prescribing homœopathically.

You ask how early should a student or practicing physician begin to prepare himself for taking up the study of a specialty? My answer is, just as soon as the spirit moves him, in other words when he begins to like the subject and have a thirst for a further knowledge of it. I consider a fair working knowledge of general medicine an essential requisite to the making of a first class specialist. I have always felt so and am more firmly convinced each day. I believe a man should spend at least five years in the practice of general medicine

before taking up any specialty. It is well too that he should spend what spare time he can in home study, occasional attendance at clinics, if possible, and seek aid from those of his medical friends who have made a success in their specialties.

I do not believe in students specializing too early. They are too inexperienced to know just what they really want. If they attempt it they will never make well rounded physicians or specialists. On the other hand it is not well to postpone until too late the preparation for a specialty. A man can study better and accomplish more before forty than after. If there is a best time to begin the more earnest study of a specialty it is between the ages of twenty-eight and thirty-two years.

The only opportunity available for regular training in Philadelphia is the Polyclinic which stands on a par with any of the other postgraduate schools in America. I spent nine months there (October, 1904, to July, 1905) as a student and got, on the whole, very fair work. From talks with students who were coming and going constantly during this period I learned indirectly that the Polyclinic was giving as good or better training than were the other schools scattered throughout the states. The staff at the Polyclinic in Philadelphia was and is still quite strong. The one great fault I would find in the training there is the same that exists in the other colleges of its kind in America, and that is, with very few exceptions, there is a lack of system in the teaching. This lack of system costs the student some very valuable time. I find too there exists in our American institutions generally that lack of enthusiasm and ginger in the teachers that is so prevalent in the German and Austrian professors.

I know of no particular homœopathic postgraduate school in the eastern part of the United States outside of that in New York city and I believe you already have a man to furnish you with the necessary information concerning that. He can also furnish you with information about the other postgraduate schools in New York.

Concerning the question of relationship between general practitioners and the specialist I beg a postponement of my answer until after our next conference which I believe is to be held at an early date.

Thanking you for the courtesy you have shown me in soliciting my views upon these very pertinent and vital questions,

I am sincerely yours,

G. W. MACKENZIE.

MARKED IMPROVEMENT OF VISION IN CATARACT CASE AFTER REMOVAL OF NASAL POLYPI.*

LOUIS D. HYDE, M. D.,

Owego, N. Y.

DURING the last few years many chapters in text books, more papers for societies and not a few brochures have been written upon the relationship between diseases of the nose and eye.

By direct extension; by pressure of swollen membranes, retained discharges and new growths; by means of the vascular system and reflexly through the nervous supply, pathological conditions in the nose have been blamed, and rightly, for many troubles of the eye. A list of these latter to be traced more or less directly from the former almost reads like the index of a text book on ophthalmology—embracing blenorrhœa, dacryocystitis, conjunctivitis, keratitis, iritis, asthenopia, and so on, and including actual retinitis and optic neuritis. Even glaucoma has been proved to follow diseased states in the nasal cavities and accessory sinuses and many cases have been reported as relieved or cured by the Dowling treatment of argyrol tamponage in the middle meatus or against the middle turbinated body.

The greatest interest in these cases of late has centered about the accessory sinuses; scant attention has been paid to the lowly polypi except as they have been present as concomitant symptoms of a degenerate membrane or have obtruded themselves by reason of their great size or multiplicity. Furthermore, among all the various secondary eye disorders mentioned by different authors, the writer has not happened to run across any notice of cataract and is consequently rather diffident about claiming that the improvement of vision in the following case was due entirely to the removal of the polypi. Nevertheless, if such was not the case the coincidence was most remarkable. I will state the facts and you can each draw your individual deductions.

The patient, a man aged 54, was first seen on March 2d, 1912, having been sent by a physician from a neighboring village for examination of the right eye. He gave the following history: Eyes had

*Read before the N. Y. State Homœopathic Medical Society.

been weak for some time and for the past week or so he had noticed a dark spot in front of the right eye, with occasional "glimmering" before that eye. He had never observed whether vision had been failing in the eye before the discovery of the spot. Had worn glasses five or six years for reading, but as they had never been properly fitted he had not thought it worth while to bring them down with him, so it was not known what he had been wearing.

Ophthalmometer showed practically no corneal astigmatism. Test with lenses at trial case was as follows:

O. D. 15/70, + 0.50 s \subset + 0.50 c axis 180° = 15/30?

O. S. 15/20 ? ? ? , + 0.50 s \subset + 0.50 c axis 180° = 15/15.

Added + 2.25 s for reading.

Lens, upon examination with ophthalmoscope and with oblique illumination, proved to be cataractous, haziness being most dense in the center; no marked peripheral rays present. Very slight general haziness in lens of left eye. No muscular trouble of any consequence, only two degrees of esophoria being found.

Voice and respiration indicated nasal obstruction, so after concluding the eye examination I suggested that the nose be looked at, the patient consented and remarked that his physician had advised him to have that examined also. Found polypi in both nasal passages and recommended their removal; three days later, March 5th, took two large polypi from the right side and one from the left. Saw him again on the 6th when the nose was cleaned out and a douche of glycothymoline, one to four was prescribed to be followed by

R. Mentholgrs. x.
Ol. Cassiægtt. v.
Eucalyptolgtt. xv.
Benzoinol q. s. ad.

M.

Sprayed from an oil atomizer.

On the 9th he came to the office again and the vision of the right eye was 15/40 without glasses. This was unexpected enough but a greater surprise was in store, for on the 16th the sight had improved to 15/20? On the 30th there was a further gain to 15/15?, and + 0.50 s improved somewhat.

On May 26th the vision was

O. D. 15/15? + 0.50 s improves.

O. S. 15/20, + 5.50 s = + 0.50 c. axis 180° = 15/15 + + + + +.

On July 19th the vision had gone back in the right eye to 15/20?.
 $+ 0.50 \text{ s } \subset + 0.50 \text{ c axis } 180^\circ$ bringing it up to 15/15 ? ? ?, and the
 patient complained of seeing rings before that eye. Found another
 polyp in the right side of the nose, which was removed on Aug. 12th,
 On Sep. 11th the vision was

15/15 ? ? ?; $+ 0.50 \text{ s } \subset + 0.50 \text{ c axis } 180^\circ = 15/15?$

The general haziness of the lens has cleared up markedly but there
 is a spot denser than the rest of the lens and coinciding with the loca-
 tion of the nucleus which is best seen with reflected light; this probably
 accounts for the spot which the patient says he notices when reading.
 It is not however of a sufficient degree to cause him much inconve-
 nience.

During this time he has used nothing in the eyes but a mild as-
 tringent and antiseptic solution which has relieved a slight irritation of
 the lids and has done away with the weak feeling he complained of at
 first. Internally he has had nothing except a few doses of phos-
 phorus 6x.

There are two facts which it might be well to note before closing.
 First—the patient has a catarrhal condition remaining but there is
 no evidence of ethmoidal or other sinus involvement.

Second—he accepted at the last test the same combination of lenses
 that he did before the polypi were removed. This was true also of
 most of the intervening examinations, the two exceptions showing the
 spherical portion of the lens to be identical but the cylindrical part
 eliminated.

239 Main Street.

EARLY DIAGNOSIS AND TREATMENT OF LARYNGEAL TUBERCULOSIS.*

J. HENRY HALLOCK, M. D.,

Saranac Lake, N. Y.

IF we are to believe Bosworth we start out with rather a gloomy outlook when we are asked to treat a case of laryngeal tuberculosis, for he says when this disease is a complication of pulmonary tuberculosis the average duration of life is but eighteen months as against three years for a straight pulmonary tuberculosis.

It is to be regretted that an examination of the larynx is so infrequently made when we are making our first examination of the lungs. It is such an important part of the respiratory tract and to one used to laryngoscopic work should aid in the diagnosis; by a little practice we can learn to recognize the condition long before the pear-shaped arytenoids, turbaned epiglottis, perichondritis, or ulceration of the cords has developed. If we wait for these old and advanced conditions to appear our treatment must mean defeat in a large per cent. of our cases.

In a beginning tuberculosis a weak voice has long been recognized as indicating a weak chest; of course this weak voice may be due to a slight laryngeal catarrh, or to some slight condition of paralysis. But in a catarrhal condition the mucous membrane is evenly congested and covered more or less with a catarrhal secretion, whereas in a beginning tuberculosis the tubercular deposit shows itself by a mottled congestion; these localized patches are easily recognized. The whole upper respiratory tract of a tubercular patient, if he is run down and anemic, has a distinctive pallor, and especially is this true of the larynx; you are very safe in calling the case tubercular if you find with this on one side of the larynx an arytenoid cartilage or a cord persistently red and thickened. At this time the patient may complain of a tickling or pricking sensation in the throat with dryness and a slight hacking cough; but often there is only little annoyance in the very beginning, yet they usually have some sensation of tenderness on swallowing.

*Read before the New York State Homœopathic Medical Society.

One of the most constant abnormal pictures revealed by the laryngoscope in an incipient tuberculosis is an elevated plate-like thickening of the mucous membrane of the posterior commissure. This is usually reddened but may be edematous. This plate-like elevation generally occupies the middle of the commissure and usually has a vertical depression running through its center separating the elevation into two even halves. This I consider one of the sure signs of beginning tuberculosis. Later this elevated tissue may break down into ulcers. About the time this elevation shows at the commissure or a little later, one may find a thickening and reddening of one cord. This is most often found near the posterior insertion and may soon develop into a small ulcer with a white slough. This ulceration is in spots and it leaves the cord looking as if small pieces had been nibbled from its edge.

The characteristic feature of a tuberculous ulcer is its multiple character and their tendency to run together. Frequently the posterior part of the cord is entirely eaten away while the anterior portion is but slightly diseased.

The false cords are often infiltrated and sometimes overlap the true cords; this congestion is apt to be patchy. The arytenoids often show localized patches of redness, looking mottled and angry, long before definite lesions are found. The pear-shape swelling does not develop until later; after this appear conditions and symptoms which used to be considered as necessary for the diagnosis of laryngeal tuberculosis, but are now known to indicate an advanced disease.

We all have our own way of dealing with this advanced tuberculosis and it is only a matter of individual choice whether we use the electrocautery, curette the ulcer, or use the usual local applications. We are bound to lose a large per cent. of these patients, due to the destruction of tissue and the rapid development of poisons which completely undermine the patient's vitality; besides, this condition always accompanies a well developed pulmonary tuberculosis. When recognized early and followed up with the proper treatment the result is very gratifying, for a large per cent. of patients will recover.

Our difficulty as specialists is that the general practitioner is consulted first and oftentimes the matter is not considered serious enough for consultation until it is advanced far beyond the incipient stage.

In treating laryngeal tuberculosis we must remember that the same general regime of fresh air, feeding, rest, etc., is demanded as in the pulmonary type and nowhere is the benefit of rest treatment better

proven. In addition to this we must carry out a plan of local treatment. Personally I do not believe in as strong applications as are used by many; I usually begin by cleansing the parts thoroughly with alkalol half strength. (This excellent preparation is put up by the Alkalol Company, of Taunton, Mass.) After a few minutes' wait follow this with a 10 per cent. solution of argyrol, which application should be made daily. Good results are frequently obtained by alternating the argyrol with an application of equal parts of tincture of iodine and glycerine to which 10 grains of potassium iodide have been added.

When ulceration of the cords exists it is doubtful if anything gives much better results than the old lactic acid treatment, though I usually alternate this with formalin. Many prefer silver nitrate and not without reason.

As homœopaths we must remember that the indicated homœopathic remedy is our main stay. The patient should not be allowed to talk at all, not even whisper; but must communicate his wants by signs, or paper and pencil, as absolute rest is important.

Rhinogenic Uveitis.—The superior ophthalmic vein (the main venous outlet of the orbit) receives twelve veins: 2. A vein from the frontal sinus; 3. a vein from the antral plexus; 4. a branch from the inferior ophthalmic; 6. the anterior and posterior ethmoidal veins; 9. the *venæ vorticosæ*; 10. the central retinal vein; 11. veins from the optic nerve sheath plexus. There is almost complete absence of valves in the veins of the eye and orbit, hence (Krauss and Birch-Hirschfeld) that blood has a very free passage forward and backward.

Lymph spaces have been demonstrated (Hirschfeld) in the orbital tissues of rabbits, dogs and apes. There are two moderately large [human] lymph spaces posteriorly—the hyaloid lymph sheath and the optic nerve lymph sheath—and two large ones anteriorly—the posterior and anterior chambers.

The association of nasal and sinus disease with anterior uveitis, on the basis of clinical evidence, seems altogether likely. The most careful exploration of the upper respiratory tract should be made in every case of uveitis, and even when the nasal condition seems negative, intra-nasal and general measures ("intensive elimination") are to be recommended to deplete the nasal mucosa to the fullest extent.

TONSILLECTOMY VERSUS TONSILLOTOMY.

C. E. TEETS, M. D.,

New York.

THREE cases: One in which tonsillectomy was performed followed by impairment of the voice, and two cases of tonsillotomy with marked improvement of the voice.

When I commenced the removal of tonsils, which was about twenty-six years ago, it was the general opinion that it was not necessary to remove the whole gland, only the part that projects beyond the normal limits, the pillars of the fauces. In cases of moderate enlargement with adhesions the simple release of the gland, if properly maintained, would often cause a certain amount of reduction so that it was not considered necessary to resort to the tonsillotome or knife. I know of my own knowledge that in many cases so operated upon the results were very satisfactory.

In the past few years all this has been changed and now it is almost the universal opinion that most or a complete removal of the tonsil is necessary. There is however a diversity of opinion as to the operative procedures, many believing that tonsillectomy (that is removal of the faucial tonsil in its entirety) is necessary to obtain a perfect throat and preclude the possibility of a return of tonsillitis and the absorption of toxins into the lymph channels at that point. So much has appeared not only in our medical journals but in the daily press about the advantage of the complete removal of the faucial tonsil that it is not surprising that tonsillectomy has gained so many adherents. It has been claimed that where the tonsils are properly removed certain diseases are cured and patients become immune from many infectious diseases.

A short time ago I read in one of the New York daily papers that Dr. Ira O. Denman, of Toledo, discussing a paper on throat infections read by Dr. M. M. Whitlock, of Charleston, Ill., at the closing session of the Illinois Homœopathic Medical Association, made this remark: "If you are a well developed specimen of physical health and wish to remain so to a ripe old age, have your tonsils removed." From my own experience I cannot agree with the doctor that to live to be a

good old age it is necessary to remove the tonsils, because in the last twenty-six years I have examined not less than thirty thousand throats, many of the patients were well advanced in years who never had their tonsils removed and appeared to be in better health than many younger people of today.

I agree with Dr. Heller in *The Laryngoscope* of October, 1911. He says, admitting that the tonsils are avenues of infection: "Is it safe to assume that if we remove them the infection will not get into the system in some other way? Is it possible to remove all this tissue? The lingual tonsil remains, the follicular tissue at the base of the tongue is still there, and often there is a chain of lymphoid tissue along the lateral walls of the pharynx behind the posterior pillar."

We have read in the past few months so much about progressives that the word has become very common and even doctors now claim to be progressive physicians because they remove every tonsil they see: Twelve years ago I came to the conclusion that it was not necessary to remove all tonsils and up to the present time I have not changed my views. Many younger physicians in their eager enthusiasm to operate are removing tonsils which are not hypertrophied, adherent or causing any trouble to the patient.

In this great craze for removing tonsils there has been one thing that has been overlooked by many physicians, that is that the most serious pathologic conditions are not always found in the most hypertrophied tonsils, an overlapping pillar may so confine pyogenic germs as to force them into the surrounding tissue. This was pointed out to me eighteen or twenty years ago by Dr. Clarence C. Rice, of New York, who advised the removal of a small portion of the anterior pillar. I have always been thankful for this advice because where there was a large anterior pillar the operation has always been followed by the best results.

On reviewing the literature on this subject you will find a difference of opinion as to the manner in which we should perform tonsillectomy, some believing that only the tonsil should be removed, others that it is necessary to remove the tonsil with its capsule intact. I believe the removal of the capsule is unnecessary and more liable to be followed by wound infections. There are so many methods for the removal of diseased tonsils that three years ago I decided, partly to satisfy myself, to operate a certain number of cases employing all the most popular methods. The technique described by the different

authors was closely followed and therefore I believe I am able to judge as to the comparative merits of each.

One of the methods used was that devised by Pyncheon, of Chicago, called electrocautery dissection, which he claims secures the desired result with safety and efficiency. The technique of this operation is as follows: First, a 10 per cent. solution of cocain to which has been added a few drops of carbolic acid was applied to the tonsils to be operated upon. During the operation the tongue depressor must be held by the patient, or a self retaining one may be used. All adhesions between the tonsil and faucial pillars are first divided with the cautery knife. The tonsil having been released, the next step is to grasp the gland with suitable tonsil forceps and lift it out toward the medium line, and then with properly bent electrode dissect a portion or the whole of the gland from its attachment to the pharyngeal aponeurosis. The point of the electrode should be at white heat as this will give the least pain, best results and lessen the hæmorrhage. The dissection should be done slowly, doing but little cutting at each stroke. Pyncheon advocates the dissection of the whole gland at one sitting, but I believe it desirable in some cases to remove only the upper portion at the first sitting and the balance at the second sitting which is usually in about ten days. This method has certainly one advantage, absence of hæmorrhage, and I believe would be the treatment par excellence if it were not for the marked inflammatory reaction which I have found sometimes difficult to control.

The next method used was that devised by Dr. Sluder. The technique, briefly described, is as follows: If the right tonsil is to be removed, the tonsillotome is introduced through the left angle of the mouth until the distal portion of the fenestral margin is in contact with the inferior and posterior portion of the tonsil. The next step is to press the instrument firmly against the tissues which are drawn forward and upward for a distance of about one inch. This pushes the tonsil partly through the guillotine. The left index finger is then used to push the tonsil through the fenestrum, while the dull blade of the tonsillotome is pressed gently against the anterior portion of the tonsil to hold it in position while the balance is being crowded through the fenestrum with the tip of the finger.

It is not difficult to detect by the sense of touch when the tonsil is completely through the instrument, as the tonsil is firm and nodular whereas the mucous membrane is soft, thin and smooth in texture.

Having satisfied yourself that the tonsil is completely through the fenestrum of the tonsillotome the blade is then forced home which requires considerable power, often requiring both hands if the blade is dull.

This method of operating I have found to be very satisfactory because, as pointed out by Ballenger, the tonsil can be removed if so desired with the capsule intact without causing the least injury to the muscular bed upon which the tonsil rests. I think it advisable however where the tonsils are firmly adherent to the edge of the pillars to divide these adhesions before introducing the tonsillotome. Ballenger in his last edition has called attention to certain fundamental facts underlying Sluder's technique.

"The sinus tonsillaris (bed of the tonsil) is freely movable allowing the tonsil to be dislocated forward and upward a distance of about one and one-half inches. At a distance of one and one-half inches anterior and superior to the tonsil is located a bony prominence on the inferior maxilla, called by Dr. Sluder the tubercle alveolaris; this eminence corresponds to the location of the last molar tooth. In Sluder's operation the tonsil is displaced forward and upward over the tubercle, which in turn pushes it through the fenestrum of the guillotine. The guillotine blade is then pushed home and removes the tonsil with its investing capsule." For a more complete description of Dr. Sluder's technique I would refer you to Dr. Ballenger's book of 1911.

I have operated four or five hundred times by the Robertson method, using however both Robertson's and Dunn's curved scissors. The anterior pillar is first separated from the tonsil with the curved tonsil knife or Robertson's curved scissors and the posterior pillar usually with Dunn's curved scissors. The tonsil is then grasped with suitable forceps and pulled forward and inward, the Robertson scissors corresponding to the side to be operated upon are selected to dissect out the tonsil which is done by making a series of cuts. If desired the tonsil with its capsule intact may be removed by this method, but Robertson does not advise it. The operation was sometimes completed with the Fallows and Myles tonsil punch, these punches are used to remove any remaining tissue left in the supra-tonsillar fossa.

Enucleation with the fingers is a very old method but in the past few years it has been revived and has awakened new interest. The

pillars, if adherent, are sometimes partially separated with a knife, the finger is then inserted at the upper portion of the tonsil and passed outward and forward, separating the tonsil with its capsule from the anterior pillar, then backward and downward along the posterior pillar in the same manner until the whole tonsil is separated from the tonsillar fossa. The fibrous pedicle at the root of the tongue may be severed with a snare or tonsillotome. I operated four cases by this method and came to the conclusion that it caused unnecessary suffering and inconvenience to the patient. Furthermore, there was no excuse for using the finger except that the knife or curved scissors required surgical skill for their successful use. I operated three cases separating the tonsils from the pillars and underlying tissue with a double ended submucous elevator. I found it could be accomplished almost as rapidly as with the finger and certainly it was more surgical and scientific. Those who have watched cases in which finger enucleation has been performed, agree that the wound does not heal as rapidly as when the tonsillotome is used.

If you look carefully through the literature on the removal of tonsils by enucleation you will find a number of cases reported in which not only severe sepsis developed from streptococcus infection but which were followed by death of the patient. Dr. Brooks at the last meeting reported a case of a boy in Kalamazoo who died a short time after enucleation of the tonsil. If every case of enucleation of the tonsil with the finger or snare which resulted in death was reported it would surprise you. But when the patient dies it is frequently attributed to status lymphaticus.

I have operated not less than five thousand cases and I agree with Dr. Ballenger that a clean cut dissection with the tonsillotome or suitable knife is less apt to be followed by infection than a dull cut or crushing dissection with the finger or snare.

This last winter I had the opportunity of looking after a patient whose tonsils had been removed by finger enucleation. I witnessed this operation and it certainly was a clean dissection, the pillars not being injured in any way; the left tonsil was removed with the capsule intact. On the second day after the operation the patient developed a high temperature and a slight rash. Lenox Brown and other writers have described a rash following removal of the tonsils called tonsillotomy rash but I had never seen it before. I did not see the patient again for about five days when her mother brought her to

the clinic and informed me that she had been very ill and confined to bed; on the left side the neck was swollen and there was considerable sloughing from the left tonsilar fossa. I cleaned out the fossa carefully and applied nitrate of silver, 120 grains to the ounce. I treated her twice a week but it was fully four weeks before the child recovered from the operation, something which had never happened in any of the cases which I have operated, as they usually heal in about seven days.

A number of cases were operated with the snare after dividing the adhesions. About twenty cases were operated using the snare on one tonsil and the tonsillotome on the other. This was done for the purpose of seeing what advantage the wire snare had over the dull blade tonsillotome in diminishing the bleeding.

In several cases the hemorrhage was more active on the side in which the snare was used. I came to the conclusion that no advantage could be claimed for the snare over the dull blade tonsillotome unless considerable time was consumed in cutting through the base. Jackson complains that the snare predisposes to secondary hemorrhage. Secondary hemorrhage occurred in one case in which the snare was used but was easily controlled. Several cases were operated upon by dissecting out the tonsil with curved knives and completing the operation with either the tonsillotome or snare. In about fifty cases after dividing the adhesions, if any existed, tonsils were removed with the Roberts punch; this I found to be a very excellent method in some of the cases. In many of the cases in which tonsils were not adherent to the pillars the tonsillotome was the only instrument used.

Having given each of these different methods a fair trial, the conclusion reached was that no one method was applicable to all cases, and the careful surgeon will select the one that will cause the least inconvenience to his patients with the best attainable results.

In a large number of cases which I have operated, tonsillotomy was advised and was followed by the most satisfactory results. I do not want it to be understood as advising the removal of only a small portion of the tonsil and leaving the greater part of the gland still adherent to the pillars. My method is to break up all adhesions between the pillars and tonsils and then to remove all of the tonsil that can possibly be removed with the tonsillotome.

The advantages of tonsillotomy when properly performed are, less danger of profuse hemorrhage and rapid healing of the cut surface.

Dangerous hemorrhage after tonsillotomy is very rare and where alarming hemorrhage has occurred it has been due to a sharp tonsillotome. This is not only my own opinion but the opinion of a great many other operators. I believe there are some cases in which tonsillectomy is advisable, especially where the tonsils are submerged, firmly adherent or the crypts large, deep and diseased with a tendency to accumulation, but it must be borne in mind that tonsillectomy is not a simple or minor operation and it is sometimes followed by severe hemorrhage and occasionally death.

There is no valid reason, and I do not think it good practice, to operate all cases in the same manner. If we are going to decide which is best for our patients, tonsillotomy or tonsillectomy, we must render our decision upon each individual case. This seemed to be clearly demonstrated in the following cases which I wish to report and which was the principal reason for writing this paper:

Miss M., a professional singer, consulted me in September, 1909, she gave a history of frequent attacks of tonsillitis and occasional pains extending from the tonsils to the ears. She had very large tonsils which were irregular, nodular and adherent to the pillars, tonsillotomy was performed, removing the greater portion of both tonsils with Robinson's curved scissors, the tonsillotome and the punch. After the operation was completed I noticed there was a layer of lymphoid tissue at the base still remaining but as it appeared to be a clean operation and the surface smooth I did not think it advisable to remove any more tissue. Two months after, she reported there had been a marked improvement in the quality of her voice which had not only been noticed by herself but by her teacher and those who heard her sing since the operation. Furthermore, the pains she complained of previous to the operation had entirely disappeared.

Mrs. R. consulted me in March, 1910. Examination revealed hypertrophied tonsils extending beyond the pillars and firmly adherent, these were removed practically in the same manner as the previous case, first severing all adhesions between the pillars and tonsils and then removing with the tonsillotome. The report was almost as flattering as in the previous case, improvement in the voice, noticed by all who heard her sing before and after the operation. The result in both of these cases was all that could be desired and therefore I considered the operation a success.

In September, 1910, Miss L. consulted me complaining of pains

extending from the tonsils to the ears; she also gave a history of rheumatism affecting other parts of the body. Examination revealed hypertrophied tonsils, firmly adherent, with large deep pockets filled with secretions and particles of food. As the crypts extended very deeply into the tonsils, I decided that tonsillectomy would be the only thing that would give her permanent relief. Both tonsils were entirely removed, this was followed by marked improvement in her health and disappearance of all the symptoms she had previously complained of. She admitted, herself, that her health had greatly improved and she had never felt better but that she was not able to sing since her tonsils had been removed. I had noticed impairment of the speaking voice but believed that in time this would adjust itself, and the voice would regain its former quality and resonance. I have seen her several times since then, the last time being in February of this year, but the voice has remained about the same there being no improvement, she complaining that she had not been able to sing as she did before her tonsils were removed.

After sending in the title of my paper to the secretary, a patient whom I had operated on six years ago called at my office complaining that she had been taking singing lessons with the purpose of improving her voice but did not seem to make any headway. A teacher who stands very high in New York had looked into her throat and told her that there had been too much tissue removed and she had come to see if that was possible. I told her that I did not think that had anything to do with her voice. She had some lymphoid tissue at the base of the tongue and I informed her that this should be treated or removed.

After claiming for so many years and assuring my patients that the removal of the tonsils would not in any way impair the voice but would improve the quality, these two cases have certainly started me to thinking; I often wonder if we do not sometimes remove too much tissue and if it is safe to take such chances, especially where the patient expects to make their livelihood by the voice.

While reviewing the literature on tonsillectomy and tonsillotomy I found that these were not the only cases reported in which removal of the tonsils had caused impairment of the voice. After I had completed my paper my attention was called to an article appearing in the *New York Sun*, Sunday, June 9th, by Dr. J. N. Mackenzie, Laryngologist to the Johns Hopkins Hospital, Baltimore, entitled

"Stick to Your Tonsils." He makes the claim that the wholesale destruction of these organs has wrought many woes. While I do not agree with all the doctor has said on this subject, I am certainly in accord with his views that it is not necessary to remove all tonsils and wish to emphasize what he has said in regard to selecting our cases for operation, "that we should be guided by a sane and safe conservatism and common sense and not be carried away by those who by their precedent and example are fast bringing our specialty into disrepute in the eyes of thoughtful and honorable men." The father of a patient upon whom I operated last winter informed me that the doctor he consulted before he came to me informed him that his method of removing tonsils was to take them out by the roots.

In the last three years I have refused to operate on at least twenty-five cases in my private practice which were brought to me for examination and from fifty to seventy-five cases which came to the hospital with notices stating that they had large tonsils and adenoids which required removal. These notices were given as the result of an examination made by the visiting school physician.

A little over two years ago a gentleman well known in New York brought his son to me for examination, he stated that the boy had been examined by three other physicians and all had advised removal of the adenoids and tonsils immediately. He informed me that his wife or himself had not seen anything wrong with the child's breathing and that he slept with his mouth closed and wished to have my opinion. I examined the boy very carefully and was satisfied from the way he acted that he had never been properly examined before. After making the examination I informed his father that while I probably needed the money as much as the other physicians I could not find anything to remove; there was not a particle of adenoid tissue in the vault and the tonsils were very small and not adherent. My bill for the examination was mailed and in a short time a check was received with a letter which shows that while the physician may sometimes lose in fees by doing the right thing he gains in reputation.

DISCUSSION.

H. S. WEAVER: I would emphasize the importance of the post-operative treatment of adenoids. Unless you help the inflammatory symptoms and the catarrhal symptoms to subside by remedies and local applications you will not get the best results. The nasal hypertrophies are the result of the frequent colds contracted during the fall

and winter and should be treated after the operation or you will be disappointed in the results.

C. E. TEETS: There should not be a large percentage of adenoid cases returning after operation; I believe that if the adenoid tissue is thoroughly removed they will never come back. Do not understand me to say that none of my cases ever come back, for they occasionally do; I have had to do second operations. But I regard the necessity for a second operation as my fault and do not make any charge for it. There are times when the surgeon, owing to his own personal condition, does not do his best work—days when things go wrong. Probably it is at such times that I have overlooked tissue in the vault and left just enough to start up a new growth.

WM. MUNCY: We should make a thorough examination after the operation to see that all the tissue is removed and not take it for granted; I place my finger in the postnasal space, wrapped in gauze, and make a rough swab or a curette. I do not see how it is possible for any lymphoid tissue to be left. I have had only five years' experience, but I have never, so far, had a return.

W. E. REILY: The return of adenoid tissue after operation is so frequent that we are led to the conclusion that the greatest care does not always ensure entire freedom from recurrence. Every time I operate I hope that they will stay away but I am never sure of it.

H. S. WEAVER: Did Dr. Teets claim that adenoids never come back if properly removed?

DR. TEETS: Yes sir, I think that that is so. If they come back in a case of my own, I blame myself and make no charge for second operation. In my large experience, only twenty cases have returned and I concluded that in those cases I failed to get all the adenoid tissue.

DR. WEAVER: I have had a recurrence in the case of my own boy in which I know that the operation was thoroughly done and that every particle of lymphoid tissue was removed. I examined after the operation and found the space clean; then to make sure I wrapped my finger in sterile gauze and rubbed and rasped the surface so that any stray particle might be taken away, and yet they recurred. I believe that adenoids may return after the best operation that can be done. They are more apt to return where there are frequent attacks of acute rhinitis; the intense congestion favors recurrence.

DR. TEETS: Do you use Gradle's adenotome or the curette?

DR. WEAVER: I use the curette.

DR. TEETS: I do not think that the curette can remove all the tissue.

DR. WEAVER: That is my objection to the Gradle adenotome: you cannot get them of the same curve and you cannot catch all the adenoid tissue if the curve is not just right. With the curette I can obviate that.

DR. TEETS: Go back and try the Gradle adenotome over again: I had that trouble at first but now I can place it properly and you can get every bit of tissue except that which clings to the sides or over the fossa of Rosenmüller. Then you have to use curved scissors.

DR. WEAVER: In those peculiarly formed pharynges which we so often meet, where there is a very deep curve or arch, how is it possible to adjust the adenotome to the unusually deep curve? I have had adenotomes made but they do not work: you cannot adjust them on account of the front teeth.

DR. TEETS: By putting it in different positions you need not go within one-half inch of the teeth.

DR. WEAVER: I have tried every position; you can not get into the curve with the cutting edge.

DR. TEETS: It is hard work, I admit; I have almost given up, myself, but finally succeeded.

DR. MUNCY: I have discarded the Gradle adenotome and use the La Force instrument in place of it as it cuts upwards; there are three sizes. Select the proper one and extend the head well backward, then make pressure so that the leverage is at the edge of the knife as it passes along the posterior postnasal space. This instrument has proven very satisfactory. I have found two or three cases where, on account of the bony formation of the head, the adenotome cuts on the edges on both sides and fails to remove the growth in the middle of the curve. With these exceptions I could remove all the tissue with the La Force adenotome.

DR. TEETS: I did not mean that I get it all at one cut. I go up again, perhaps a third time.

DR. WEAVER: I will try it again.

G. W. MACKENZIE: No single instrument can be made of proper size and form to fit all nasal pharynges; it is an impossibility. In my former experience when I thought that I had done a satisfactory operation and used the finger afterwards still I found some shreds of tissue unremoved; I examined the work of other operators and found the same. In a child or in anyone with a narrow high arched pharynx the usual instruments are too large. The Gotstein instrument you will find does not reach up into the dome; with most instruments you have the same difficulty. I now use an instrument between a curette and an adenotome and with this I am about certain that I get it all out. The main trouble in my opinion is that we have been using instruments that are too large. If we adopt smaller instruments with a smaller curvature I am sure that we will be more successful and will not have as many cases return for a second operation.

H. W. CHAMPLIN: What anesthetic is used?

DR. WEAVER: Ether for me.

DR. TEETS: I use ether altogether.

DR. CHAMPLIN: I have had dentists give somatoform for me.

DR. MUNCY: At one hospital in New York they use oxygen and chloroform.

G. G. TOWSLEY: A lady had diphtheria, followed by paralysis with inability to speak. This condition continued for two months under treatment without result. Finally I decided to remove the tonsils as one of them, though only of medium size, was hard and fibrous. I did a tonsillectomy and in three days her speech returned. She got entirely well after that.

G. W. MACKENZIE: I do not think that we disagree so much upon this subject as we appear to. We all agree that tonsils are subject to a variety of diseased conditions. When submerged with adhesions, whether they are large or small they should be removed. Very often it happens, with children especially, that during an acute cold the tonsils will enlarge and then go down again to their original size after the cold is over. It would be a mistake in such cases to remove the tonsils. On the other hand when you meet a fibrous tonsil, hard to the touch, bound down with adhesions, really performing no function, the crypts laden with a cheesy secretion, then I believe that we all agree that such tonsils should come out in their entirety. Many of the crypts discharge upward and infect the upper parts of the tonsillar fossa; if we allow any part of the diseased organ to remain—it is usually a small piece of the upper part of the tonsil that is left in—the patient will continue to have trouble. We have all heard protests against the use of cautery and it is true that cautery and styptics in general are liable to form coagulated blood plugs at the mouths of vessels for several days, when the plug blows out you have a secondary hæmorrhage.

The American Medical Association at Atlantic City, 1909, had a symposium on tonsils at which there was presented a compilation of fatal cases; it was found that the percentage of fatalities was quite as high from tonsillotomy as from tonsillectomy and in those where the cautery was used the fatalities ran higher than in those where it was not used.

W. H. PHILLIPS: This paper has confirmed me in the opinion that I held before that the tonsils are frequently removed without proper indications. Also I think that many operations are unskilfully done. It is not only laryngologists who do this operation but general practitioners, general surgeons, obstetricians, proctologists, skin specialists—all think they can remove tonsils as well as the laryngologist; so long as they do we are bound to have trouble such as adhesions, imperfect removal, hæmorrhages. I am not convinced from the paper however that tonsillotomy is to be preferred to tonsillectomy. A single case in which tonsillotomy on one side produced no bad results while tonsillectomy on the other produced voice injury, is unconvincing as to the general value of the two methods and their comparative liability to produce voice disturbances. I read a paper some

years ago by Dyce Brown discussing voice impairment following tonsillotomy. He reported several cases of singers whose voices were impaired after that operation, showing that tonsillotomy is not wholly blameless. When we consider the hundreds of thousands of people subjected to tonsillectomy without any noticeable voice impairment it is an argument that the operation is not in itself dangerous to the voice. And when we consider the thousands of cases operated in the past by tonsillotomy without relief and reoperated later by tonsillectomy with complete relief it seems to me there can be little doubt as to which is the better method. I cannot understand how a properly done tonsillectomy can be followed by septic infection unless it was an ill advised operation at the time. I myself had one marked case of sepsis follow a tonsillectomy in which I nearly lost my patient, but that was because I was fool enough to operate in the presence of a streptococcic infection. I feel that if a man has many cases of infection, or any cases of infection, in this operation it is because he is not as careful as he should be.

H. W. CHAMPLIN: I have the temerity to call your attention to a method that has been abandoned by those who at one time adopted it and even by the one who used it first and first recommended it. I refer to the use of electric cautery for the abolition of the crypts. The crypts are the foci of trouble, the places where the danger lies in ambush rather than in the size of the tonsils themselves. In amputation with the knife or the wire snare the crypts are cut off, but their blind extremities remain and continue to be a menace to the patient. The method of obliterating the danger by going to the bottom of the crypts with the cautery removes all possible chance of future danger, there is no secreting membrane left, what is left of the tonsils never makes any further trouble. Dr. Pyncheon advocated this procedure twenty years ago and then dropped it; I have done it with the most satisfactory results.

I have also noticed immediate results in the improvement of the voice, especially in the young. But after the damage to the vocal organs has been done I have generally been disappointed so far as the voice goes. I have the temerity to offer my experience with what may be considered a back number method, for your superior criticism.

C. A. HARKNESS: I have been unfortunate enough to come across several cases of hæmorrhage. I usually do a tonsillectomy, but occasionally find a tonsillotomy all that it is possible to do and I have not observed that the method had anything to do with the bleeding. In every case that bled profusely I have found other conditions to account for it: in one case an enlarged heart, in another there was a peculiarity of the blood that prevented coagulation. I do not think that the character of the operation has anything to do with the hæmorrhage, it is generally due to other conditions.

E. G. LINN: I would like to ask the writer of the paper whether or

not the integrity of the tonsillar pillars has much to do with retaining the voice after operation. If these are considerably injured or mutilated in the operation is not the voice more likely to be impaired? If they are left intact, is not the voice more probably improved by the removal of the tonsils?

ELLA C. HUNT: In estimating the effect of the operation upon the voice the quality of the voice before the operation must be taken into account. Sopranos nearly always increase their register; be more guarded in your promises for the contraltos—a contralto of medium register may lose some of its sweetness. Sopranos can take a higher note than before the operation, provided of course there is no trouble in the nose or nasopharynx to affect the voice; in that case the removal of the tonsils alone is not much help.

W. H. PHILLIPS: I did not quite complete what I was going to say. In February a boy of ten was operated on for enlarged tonsils and almost immediately after recovery he went to the hospital with appendicitis. Two weeks later I came across a similar case: three days after the removal of the tonsils the patient had to be operated on for appendicitis. Two weeks following, a boy operated upon for tonsils was taken four days later with appendicitis. The question was forced upon me as to whether there was any relation between the two conditions or whether they were purely three coincidences. At a recent medical meeting I heard a specialist in diseases of the stomach and intestines say that ninety-five per cent. of tonsil troubles were due to infections of the gastrointestinal canal. These three cases made me think of that statement and wonder whether it was true or not.

J. R. McCLEARY: I have been working in conjunction with the teachers of the Cincinnati College of Music to get good voice resonance; in order to get that you must have a formation of normal tissues in the nose and throat. An enlarged tonsil in the throat of one who aspires to become a singer would be much like a tumor in the right arm of a base ball pitcher; fine service is not possible in either case. I do not believe however in taking out every tonsil you come across. When I do take them out I try to make it a clean operation but do not think it right to remove the tonsils until you have prepared the tissues by a preliminary training. I am speaking of singers now. We give them from two weeks to a month's preliminary treatment or training calculated to loosen the muscles and develop them so that when the enucleation is performed it will give greater results: we get an increase of from two notes to two and a half notes in the upper register of tenors and sopranos, and in basses an increase in the lower register. I go on the record which these teachers give me. They claim that they get clearer and purer tones, more bell like after the operation than before, plus their tone vibrations increasing in accuracy. something like the ease of tobacco smoke being carried softly

through the air, or again like the perfect vibration of a delicate ripple of water. That is what they are trying to develop and produce in all their pupils. I have a special record of about twenty-eight or thirty tonsils removed, half of them by tonsillectomy and half by tonsil-lotomy. The latter have been failures while I have had but one case of tonsillectomy return to me. The most important part of this work is the postoperative treatment. It is not so much the operation that produces results as the treatment and exercises afterwards. These voice producing muscles are freed by the operation and enter a new field of activity. We begin the exercises soon after the operation, usually with the broad vowels, au, ah, and e; we do this about three days afterward. After a week it is followed by a word like "nigger" pronounced very rapidly and repeatedly, especially from the tip of the tongue while the pharynx and larynx are in their new formation or position of yawning, *i. e.*, the deep, broad free yawn which must be assumed for a basis of position for postoperative voice development. In this way I get very excellent results. If there is any bruising of the tissue I wait longer before beginning said exercises. With older persons if the muscles are relaxed and softened properly by the exercises there will usually be no trouble in getting good results. I once had a case referred to me with a history of very good voice which suffered badly, a total loss of singing voice, from the operation. Being sent to me for an opinion, I advised rest for from twelve to eighteen months with not the slightest effort toward tones. It was taken, and after about fourteen months the voice was as good as ever.

C. E. TEETS: I surely ought to know how to take out tonsils; having been at it for twenty-five years and having removed about five thousand of them I feel that I am competent to do this operation. Many of the so-called cases of tonsillectomy are not tonsillectomies at all. I have examined them. The word means entire removal of the tonsil, of all lymphoid tissue and the capsule. Many claim to do tonsillectomies who do not remove more than I do under the name tonsil-lotomy. I take great care to remove all of the tissue in the supra-tonsillar fossa. It is a common saying in the hospital, where I have been going for twenty-seven years, that my patients give little trouble and rarely have complications. I do not believe the general practitioner should do this kind of work; I agree with Dr. Phillips that it is not right for the general practitioner to do this special work nor for general surgeons either. In regard to exercising the muscles after the operation, I do not know anything about that and am obliged to Dr. McCleary for the suggestion. Certainly there is great stiffness of the muscles of the throat after the operation and the exercise spoken of might help. Remember, I do not say that tonsillectomy should never be performed; it may be necessary in some cases. My purpose was to demonstrate, first, that it was not necessary to remove all tonsils and, second, it is not at all clear that tonsillectomy should always be the operation of choice.

DR. BEEBE: When there are adhesions between the tonsils and the pillars how do you operate them?

DR. TEETS: I remove the anterior pillar only when it is enlarged and overlaps. That was suggested to me years ago by Dr. Clarence C. Rice.

DR. MACKENZIE: What is an overlapping pillar? You do not remove the whole of the anterior pillar, do you?

DR. TEETS: No, I remove only a portion of it with a pair of curved scissors; it is a question whether it is a part of the tonsil or a ligament of the anterior pillar.

DR. BEEBE: Do you use stitches? I think that there is less soreness and inflammation after using stitches.

DR. TEETS: No sir, I do not use them.

Cures of tuberculosis of the larynx, thanks to cocaine and rhinolaryngology, are no longer the exceptions. The curability of tuberculosis of the lung depends very much upon the cure of the laryngeal condition, and the curability of the latter in many instances upon the removal of lesions of the air tract above. Even minor operations on the nose and throat should be performed with great conservatism and care (as to loss of blood, etc.), and major operations only in case of extreme necessity.—W. Freudenthal, *Trans. Am. Acad., O. and O. L.* 1911.

Removing Finger Marks on Books. Dampen a piece of wash leather and use it to rub pumice on the spot to be cleaned. Brush off the pumice and rub again with a piece of dry wash leather.

The Difference Between a Sanitarium and a Sanatorium. The distinction between these words lies in the fact that they are derived from two different Latin roots. "Sanatorium" is derived from the late Latin *sanatorius*, meaning *health-giving*. The term relates specially to "an institution for treatment of disease or care of invalids; especially an establishment employing natural therapeutic agents or conditions peculiar to the locality, or some specific treatment, or treating particular diseases." On the other hand, "sanitarium" is derived from the Latin, *sanitas*, from *sanus*, meaning *whole* or *sound*. "Sanitarium" relates more specifically to "a place where the hygienic conditions are preservative of health as distinguished from one where therapeutic agencies are employed." Hence it is the province of a "sanitarium" to preserve health, that of a "sanatorium" to restore it. Care should be exercised in combining the proper vowels in these two words, in order to indicate correctly the derivation.—*Lit. Dig.*

HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

DEPARTMENT EDITOR, PHILIP RICE, M. D.

Ferrum Phosphoricum for Otitis Media.

PHILIP RICE, M. D., San Francisco, Cal.

In acute inflammatory processes ferrum phos. is to hepar what aconite is to sulphur and belladonna is to calcarea carb.

We all well know the strong tendency to suppuration of hepar. Ferrum phos. is, if I may be allowed the expression, the acute to hepar in this condition. That is to say, fully appreciating the fact that hepar is one of our chief remedies for acute suppurative states, ferrum phos. precedes hepar. In acute otitis media, for example, before the state of active suppuration has set in, ferrum phos. is without doubt one of our leading remedies. Not infrequently belladonna is prescribed in its stead because of the striking similarity between the two in symptoms and general expression. The one point of radical difference is to be found in the pulse. Belladonna has a full, firm and even hard pulse, whereas ferrum phos. with temperature equally high and the morbid process equally active has a full, soft and very compressible pulse. The latter may be said to indicate a systemic state less resistant and therefore more prone to break down.

The symptoms of ferrum phos. in otalgia are worse at night; are throbbing, shooting and tearing; the face is flushed, ears red and hot, and the skin likely to be moist. In short, if we have before us a typical belladonna picture we can by adding a soft compressible pulse easily convert it into a ferrum phos. picture. Hepar, as has been said, follows ferrum phos. Let the latter modify the symptoms and then cease to act, hepar will invariably come in and finish the case.

Remedies for Otagia.

GEORGE ROYAL, M. D., Des Moines, Ia.

Belladonna. Thrusting, shooting, pinching pains deep in the ear; *tearing in middle and external ear; very sensitive to noises; external ear red and tender; relief from cold applications; face red.*

Belladonna is useful not only when the pain accompanies acute otitis but when the patient is suffering from parotitis and erysipelas. I prefer bell. 30th internally and the tincture externally. Put 10 drops of the tincture in a pint of *cold* water, dip a cloth in the solution and apply to the affected ear.

Capsicum. A drawing, tearing pain deep in the ear and behind the ear; *tenderness over the mastoid area; pain relieved by applications of heat.* The above are the symptoms of the first stages of suppurative otitis and mastoiditis and will often prevent suppuration

It is also our best remedy after suppuration when you have bursting headache, chilliness and discharge of yellow, *gritty pus*. *Amelioration from heat* is characteristic for all stages. This, like belladonna, I use both internally and locally—the 3d or 6th internally. Externally I use a poultice of flax seed or corn meal in a sack over which I have poured some pepper tea as hot as the patient can bear. Cover the side of the head with the poultice.

Pulsatilla. Pain as from something forcing out; jerking, tearing pain through the ear. Stopped sensation of ear; redness and swelling of the outer ear; also with otorrhœa which is bland and creamy.

Relief from cold. The otalgia usually accompanies otitis and otorrhœa following measles or scarlet fever. *Pulsatilla* 3d to 30th.

Chamomilla. Extreme sensitiveness not only of the ear but the patient; stitching, lancinating pain worse from stooping; lancinating pain worse from noise especially music; roaring as from rushing water. I have found chamomilla most useful in cases of teething children cutting their molars. Have secured the best results from 30th to 200th in the five drop doses often repeated.

Spigelia. Pressive, jerking, *intermittent* pains; *pressure as from a plug deep in the meatus* extending to *zygoma* and *molars*; a stitching pain extending into the eye. The peculiarity of spigelia is that the pains often cease in and about the ear and for a few minutes appear in teeth, eyes, face or even about the heart to suddenly reappear in the ear. *Spigelia* 6th and 30th give the best results.

Verbascum. *Tearing lancinating pains followed by numbness*; sensation as if the ear were drawn inward. The *numbness* or sensation as if the parts *were crushed with tongs* is the characteristic symptom of this group. Sensation as if the ear were stopped up with a sudden changing of that feeling to the tearing pain and numbness. Oil of verbascum (mullein) warm and applied locally will frequently instantly relieve the pain and the 30th internally will permanently cure these cases.

Magnesia phos. Severe, sharp, intermittent pains; sharp pains behind right ear. The pains very much *aggravated by cold*, either cold air or cold water; marked *amelioration from heat* either wet or dry. The condition cured by magnesia phos. is purely neuralgic. More than that magnesia phos. rarely cures but simply relieves the pains. Magnesia phos. has served me best in the 3d or 6th trituration.

Plantago. Earache associated with toothache (cham.). Sharp, shooting pain from one ear to the other, through the head; darting, stabbing, twisting pain from lower maxillary to one ear then through the head to the other, worse from the least noise. Usually the face and teeth are involved. Use plantago 3d internally, and if you can secure the fresh leaves macerate into a poultice and apply to the face and ear. —*Iowa Hom. Jour.*

J. H. McClelland's Surgical Therapeutics. The standing orders that as a rule govern his hospital practice in serious postoperative cases:

Camphor.—When the patient comes down from the operating room she (or he) receives three doses of *Camphor* 1x three drops, at intervals of fifteen minutes, provided there is subtemperature and the blood pressure is low.

Veratrum album.—If reaction is not prompt the *Camphor* is followed by *Veratrum album* 3x, three drops every hour or half hour until the temperature reaches normal. This is particularly called for by the usual symptoms of cold sweat, etc.

Cuprum arsenicosum.—When the temperature reaches normal and nausea and vomiting develop with thirst and pain, *Cuprum ars.* 6x is given three drops hourly until relieved.

Nux vomica.—If there is simply nausea and disgust for food as a result of the anesthetic, *nux vom.* 3x is given hourly until relief.

If nausea continues unduly, choice is made from the following: *Apomorphia* 3tr., *Ipec.* 3x, or *Tart. emet.* 6x.

Arnica.—For trauma. If there has been undue handling of tissues, as in abdominal cases at times, great relief from the ensuing soreness is obtained from the exhibition of *Arnica* 3 to 6 two or three hourly, and I have been led to believe we may thus avoid further trouble.

Belladonna.—After operations there is at times a reactionary temperature, with great tenderness in and about the part, with flushed face, headache, etc., then *Belladonna* brings great relief.

Bryonia.—If the tenderness is not quite so acute, but there is much soreness locally and all over, with coated tongue and thirst, *Bryonia* is very effective.

Peritonitis or pleuritic invasion is often cleared up by the use of *Bryonia*.

Not infrequently dysuria follows an operation, especially an abdominal one, and is often relieved by *Hyoscyamus*; or, if there is anuria, *Canth.* or *Terebinth.* according to their well known indications.

A most troublesome complication after abdominal operations is flatulence or meteorism. *Raphanus* is an excellent remedy, but there are many others. *Nux vom.* 1x will sometimes cause expulsion of the gas, but we have *Magnes. phos.*, *Colo.*, *Asaf.* and many others.

For a general febrile condition we have the old tried remedies, such as *Aconite*, *Ferrum phos.*, etc.

For septic absorption with churchspire temperature chart, much can be gained by the use of *Chin. ars.* 3tr. three grains every two hours.

For phlebitis, the sheet anchor, I believe, is *Hamamelis* internally and externally—a case may require *Bell.*, *Puls.*, *Rhus*, or *Lachesis*, according to indications.

It goes without saying that, as homœopathic practitioners, we may call into service any remedy in the materia medica for which we have clearly defined indications.—*Hahnemannian Monthly*.

JOURNAL CLINIC.

The Filtering Pipette.—Despite care, aqueous solutions of cocain, atropin and other alkaloids are apt to be found contaminated by fungus or particles of foreign matter. I filter these through absorbent cotton wrapped over the end of the dropping tube; this gives a perfectly clear solution in the tube. The cotton is of course slipped off before instillation.—*J. S. Kirkendall, M. D.*

Instrument Disinfection.—Just before using the probe, speculum, mirror, or any examining instrument without an edge, I dip it into alcohol which is then burned off. Laryngeal mirrors, the Hays pharyngoscope, etc., are not injured; if superfluous alcohol is shaken off it is doubtful whether there would be enough heat evolved to injure an edge or point. After a short time for cooling the speculum or tongue depressor will not be uncomfortably hot.—*J. S. Kirkendall, M. D.*

Asthma—Nasal Etiology.—It is now eight years since the writer began to make recorded observations as to the relation between chronic ethmoid disease and bronchial asthma. It can no longer be questioned that in a large percentage of cases asthma is dependent upon intranasal disease, especially of the ethmoid region. If taken before the development of emphysema or cardiac change such cases are curable by removal of the nasal disease. Even after such thoracic change, great relief is obtainable by operation. The amount and permanency of relief will be in direct proportion to the completeness with which the intranasal pathology is removed.

In examining for such pathology a simple inspection of the anterior nose is of little value. A searching exploration of all the intranasal spaces must be made.—*Burton Haseltine.*

Stain for Spirocheta Pallida (Treponema). Tunncliffe found that spirocheta of syphilis stains readily, usually in two or three seconds, with a 10 per cent. mixture of a saturated gentian-violet solution in 5 per cent. phenol. The smears may be fixed in the flame, although this is not really essential. A very thin smear is necessary for obtaining a satisfactory stain of fresh material.—*J. Am. Med. Ass., June 1, 1912.*

If the administration of thyroid extract to a patient suspected of exophthalmic goiter increases the symptoms the diagnosis is more probable.—*A. J. of S.*

Circulatory Phenomena in the Eye. W. H. Luedde says: **Arterial pulsation in the retina** is a pathologic phenomenon most clearly visible at the optic disk where the artery emerges. It is synchronous with the systole and is caused by the presence of some resistance to the bloodstream on entering the eye. This resistance may be pressure (hypertension) within the eye, as in glaucoma; or be caused by optic neuritis

or orbital tumors; or be due to arteriosclerosis; or to aortic insufficiency, as first observed by Quincke.—*J. Mo. S. Med. As.*, June, '12.

Corneal Opacity. "Pressure inunction" of 30 grains (2 G.) of calomel in 1 ounce (32 G.) of petrolatum advised. After free application of ointment to closed eyelids and in conjunctival sac, pad of absorbent cotton is placed over it and 3 or 4 turns of elastic flannel bandage then applied rather tightly. This is employed for two to three hours daily. Treatment to be persisted in for some months. Ointment may be strengthened or weakened according to tolerance.—Ryerson.—*Abs. Mo. Cycl.*

Corneal Ulceration. Large doses of pneumococcus serum brought about prompt cure in 70 per cent. of cases of pneumococcic corneal ulceration.—Gebb.—*Abs. Mo. Cycl.*

Coryza, Acute. Aromatic spirit of ammonia and sweet spirit of niter recommended as best agents to "abort" a cold.—*Beverley Robinson.*

Mixed stock vaccine composed of various strains of pneumococcus, 40,000,000; streptococcus, 30,000,000, and staphylococcus, 150,000,000, recommended in colds. Marked improvement usually apparent twelve to twenty-four hours after first inoculation. Repeat dose on second day, then, in prolonged cases, at three to six day intervals. Severe complications following colds prevented by vaccine treatment. In cases where catarrhal condition persists between acute attacks, *M. catarrhalis*, 100,000,000, should be substituted for staphylococcus in the vaccine. In some cases, dose has to be doubled. Inoculations made at four to seven day intervals for several months.—Sherman.—*Abs. Mo. Cycl.*

Test for Unilateral Deafness. E. P. Fowler uses a piece of rubber tubing or, better, an otologic auscultation tube or a stethoscope with one earpiece stopped up if it is a double instrument. One end of the device should be inserted into the patient's ear, using care to prevent any occlusion of the lumen of the tube or ear. The other end should be held a few inches below and in front of the operator's mouth and a fine column of air blown through the lips into and across the extremity of the apparatus thus adjusted across the bell if a stethoscope is used. The blowing will produce a loud confused roaring in the hearing ear and will prevent this ear from detecting any other sounds. If, while this is operating, a third person talks or shouts into the ear under examination the patient will hear the shouting only if the deaf ear possesses some power of sound perception. This simple device will cut off all perception of sound by air or by bone conduction; this may be proved by using a double stethoscope in normal ears, and across into the bell.—*J. O. and O.-L., abst.*

BOOK REVIEWS.

TEXTBOOK OF OPHTHALMOLOGY IN THE FORM OF CLINICAL LECTURES.
By DR. PAUL ROEMER, Professor of Ophthalmology at Greifswald.
Translated by DR. MATTHIAS LANGDON FOSTER, Member of the
American Ophthalmological Society; Member of the American
Academy of Ophthalmology and Otolaryngology. *Volume 2.* 275
pages, 186 illustrations in the text and 13 colored plates. \$2.50, net.
New York: Rebman Co. 1912.

This is next best to attending a clinic and to going to Greifswald. In this volume, chapters 5 to 12 inclusive, we have Diseases of the Eyelids, Injuries of the Eye, Diseases of the Vitreous, of the Sclera, the Lacrimal Organs, and the Orbit, Glaucoma and Muscular or Concomitant Strabismus. Among the captions which attract attention in the minutely classified table of contents are: What the general practitioner should do in case of injury to the eye; the clinical pictures that appear in the posterior segment of the eyeball after contusions without rupture of the sclera; ditto in the anterior segment; genesis of sympathetic ophthalmia and its prophylaxis; cranial injuries and the eye; concentric contraction of the field of vision in ophthalmic neuroses; judicial medical opinion in injuries of the eye; connection between injuries and tumors of the eye; inflammatory exophthalmos and the importance to the eye of disease of the accessory sinuses; glaucoma change of fluid; tension; nature and origin; intermittent ophthalmomalacia.

One does not read far before feeling that Roemer is par excellence a teacher; his style—that of the translator—is easy, clear comprehensive, but not verbose. The illustrations are good, the colored ones particularly fine. A book that we emphatically recommend.

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EDITORIAL.

FRALICK'S ARTIFICIAL SERUM.

UNFORTUNATELY cases are not so rare as they should be of patients dying of septicemia after operation for mastoiditis, sinus thrombosis, etc. We wish to call attention to a remedy, heretofore unpublished, which has for ten or more years demonstrated its efficiency in cases of septicemia which are not beyond all help.

Outside of our head specialties it has afforded remarkable relief in sinuses, diabetic gangrene and tuberculosis. The writer has known a case of hæmorrhagic pulmonary tuberculosis, for twenty-two days constant bleeding which ceased at once and permanently upon a venous transfusion of 500 cc. of Wilfrid G. Fralick's Artificial Serum.

This is an ionized solution of the alkaline metals of the blood, approximating normal blood physiologically and chemically, it is *isotonic* and *isosmotic* with normal blood serum (each having 4.91 atmospheres of pressure*), and acts chemotactically, causing either positive (increased leucocytes) or negative (diminishing leucocytosis) hæmotaxis.

Fralick's Serum acts upon bacteria (1) as a powerful oxidizer, (2) osmotically, and (3) chemically.

(1) Toxins are reducing albuminoids, they use much of the blood's oxygen; they are less stable than the normal albuminoid substances of the blood.

Fralick's Serum oxidizes the toxins first, neutralizing and transforming them. It relieves septic infection by destroying the toxins which have caused the leucocytosis, bringing about—or rendering possible—a negative hæmotaxis.

*Estimated by the freezing point and electric conductivity.

(2) A vegetative bacterium has a limiting membrane. The very slightest osmotic change (adding or taking away liquid) causes plasmolysis—*i. e.*, separation of the protoplasm of the cell wall—which is fatal to the bacterium.

Fralick's Serum has this osmotic influence, with its 4.91 atmospheres of pressure. In certain cells the pressure amounts to 20 atmospheres.

(3) Chemical substances in solution may permeate the limiting membrane and act upon the protoplasm. This serum acts thus upon bacteria.

Experience of more than eleven years has proven that this serum is innocuous, antitoxic and bactericidal. It *oxygenizes* the blood and tissues, introducing nascent oxygen. It reinforces the natural germicidal power of the blood by bringing about a healthy condition; any excess does no harm, because it is physiological.

This Serum has the same electric conductivity as the blood. It increases the hæmoglobin, transforming it into oxyhæmoglobin, increases the red and the white cells and *promotes the formation of connective and fibrous tissue* (*e. g.*, assisting the walling off of a pulmonary tubercular area).

It is a cell regenerator and reconstructor.

Experiments were made upon dogs; those treated with this intravenous infusion in about a month reached a higher normal than their controls, while dogs artificially anemic which were not infused remained below normal for many months.

Dr. Fralick is not pushing this serum—he devotes himself to gynecology and surgery—has not taken the trouble to write it up. While glad to have it serve his professional brothers and humanity he has learned by bitter experience to keep it within his control and not allow its fame to be injured by administration in hopeless cases as a last resort.

We are publishing this for the two-fold purpose of protecting Dr. Fralick's priority and of commending a therapeutic procedure that promises well enough to warrant its more extended trial.

It is free from the anaphylactic dangers of protein sera which, as pointed out in discussion* by Drs. Benjamin White and Robert G. Eccles, are very serious and must never be overlooked.

**Long Island Medical Journal*, Dec., 1912.

GEORGE ANDREW SHEPARD, M. D.

BY GEORGE W. MCDOWELL, M. D.

GEORGE ANDREW SHEPARD, President of the Homœopathic Ophthalmological, Otological and Laryngological Society, was born June 6, 1868, at Bristol, Conn., the son of Andrew and Leontine Tuttle Shepard. His early education was obtained in the schools of his native state, graduating from the High School at Hartford. He pursued his medical studies at Jefferson Medical College, Philadelphia, from which he was graduated in 1888. In the following year he took his second degree of M. D. at the Hahnemann Medical College of Philadelphia. He affiliated himself with the homœopathic school and coming to New York began his postgraduate studies in diseases of the eye and ear at the New York Ophthalmic Hospital, from which he received the degree of *Oculi et Auris Chirurgus* in 1890. He was at once appointed a clinical assistant in the Ophthalmic Hospital clinic, later becoming assistant surgeon, and in 1898 was appointed surgeon which position he still holds. Last year he was honored by his colleagues, who appreciate the work he has done for the institution, by his election as President of the Board of Surgeons.

Wishing to perfect himself in the technique of the radical mastoid operation he spent the summer of 1897 in Europe, devoting most of his time to a study of the operative work in Schwartz's clinic at Halle where all the niceties of the mastoid operation were demonstrated by a pastmaster of the art. In 1901 he again visited the European eye and ear clinic spending several weeks with Jansen in Berlin.

He joined the New York County Society in 1891, and was its president in 1909. He has been a member of the New York State Medical Society since 1892 and of the American Institute since 1895; is also a member of the Academy of Pathological Science and of the Chiron and Meisson clubs.

In 1898 Dr. Shepard was married to Miss Helen Foster, two of whose brothers are homœopathic physicians, one of them being a member of our society. His family consists of three children, one of whom, a boy, will doubtless wish to follow in the footsteps of so worthy an ancestor.

PATHOLOGY OF GLAUCOMA.

FRANK O. NAGLE, M. D.,

Philadelphia, Pa.

HIPPOCRATES is the first author in whose writings is found the word glaucoma; it is used in reference to diseases of the eye. He and his successors down to the beginning of the 18th century confound glaucoma and cataract. Brisseau, 1709, from the anatomical examination of the eyes of Bourdelot, the blind physician to Louis XIV, showed that the seat of cataract was in the lens.

The next epoch was when McKenzie (1830) observed the hardness of eyeballs and employed puncture of the vitreous for the relief of the increased watery contents of the eye. Jaeger (1854) first discovered the glaucomatous cup, but described it as a swelling instead of an excavation. This description was repeated by von Graefe but was quickly corrected the next year.

Starting from the idea that the deleterious effects of glaucoma were due to increased tension, von Graefe sought a means of reducing it. Observations of animals in which iridectomy had been performed led him to the epoch making discovery of iridectomy as a cure for glaucoma.

In 1876 Max Knies and Adolph Weber working independently and following a clue given three years earlier by Leber discovered the frequency of obstruction of the angle of the anterior chamber in glaucoma.

Glaucoma is a term used in a broad sense for all those conditions in which intraocular tension is pathologically increased. We recognize the following forms. Primary: this is usually bilateral and occurs in an eye which had had no previous inflammation or anything to cause glaucoma. Secondary glaucoma is the result of some previous inflammation. Glaucoma simplex; this form is now being looked upon more as an atrophy, and gives the worst prognosis for recovery with operative procedures. According to Uhthoff's statistics of the University of Breslau about ten per cent. of the cases of glaucoma simplex become decidedly worse after operation. My preceptor in ophthalmol-

ogy, Dr. Wm. Campbell Posey, in 1898 reported a series of 65 cases of glaucoma simplex treated with myotics extending over a period of a number of years with very favorable results as to preservation of vision.

Hydrophthalmos, congenital glaucoma. This is very rare and I have the honor of presenting a case.

A recent review of the literature from a therapeutic standpoint shows that iridectomy gives better results than medical treatment. (*Das Archiv für Augenheilkunde*, June, 1912.)

All forms of glaucoma can merge into each other, one form may appear in one eye and another form in the other. Secondary glaucoma is best considered first, since from the standpoint of pathogenesis it is more easily explained. It is due to the following conditions:

- 1st. Annular or total posterior synechia.
- 2d. Perforation of the cornea with anterior synechia.
- 3d. Dislocation of the lens into the anterior chamber, laterally posterior. Wounds of the lens, operations upon the eye, intraocular tumors, intraocular hæmorrhage, aniridia.

While the majority of these conditions can satisfactorily explain the mechanism of the pathogenesis of glaucoma, yet the mechanism as to how a total backward dislocation of the lens produces glaucoma confronts any theory we may accept as to the theory of glaucoma. The clinical relation of aniridia to glaucoma was known before the pathological. Now we know that there is microscopically the root of the iris present which may close up the canal of Schlemm. Since the papers following this one depend upon our pathological interpretation of glaucoma—which unfortunately is limited because no one pathological theory will explain all cases of glaucoma satisfactorily—let us take a passing glance at some of the structures concerned in the pathology.

The corneoscleral junction is the thinnest part of the sclera. A study of its cross section shows much of the firm tissues substituted by vessels, lymph spaces and filtrating ligaments (weak point for blows). This region is important, not because of its anatomical structures and points of weakness in construction but because of its importance for the filtration of the fluids of the eye and its behavior in diseases of the eye. The anatomical conditions at the angle of the anterior chamber are admirably adapted to filtration. The blood vessels are reduced to mere endothelial tubes and their walls are firmly adherent to the sur-

rounding sclera, so that the lumen is constantly kept open. In the dead eye after an injection of carmine the colored fluid passes out not only by the anterior ciliary veins but also in smaller quantities and less constantly by the vortical veins. This region was studied in animal eyes before human eyes and deductions were deduced which to this day are used but are not applicable to the human eye. This is the reason Hueck applied the name *ligamentum pectinatum*. According to Salzman, the *ligamentum pectinatum* is composed of two parts: corneoscleral longitudinal fibers from the termination of Descemet's membrane to the scleral spur, and a sclerociliary part which is of a more spongy nature and fills in the angle of the anterior chamber. The *ligamentum pectinatum* is covered with endothelium which is continuous from the cornea and penetrates into the meshes of the lymph spaces of Fontana. Henderson proposes to name this ligament the cribriform plate, and considers it nothing more than an open nonsclerosed part of the sclera, and as such consists of longitudinal and cross fibers. Be that as it may, we can say these fibers in man are of a finer texture than the surrounding sclera and serve as a filter. Some of the lower animals do not show any histological difference between the *ligamentum pectinatum* and the surrounding sclera. This is the same in the human embryo and if it does not undergo the process of evolution, till birth, we have infantile glaucoma developing in such an eye. External to this ligament the canals of Schlemm, three or four lymph spaces, empty into the anterior ciliary veins.

Sclera. The oblique exit of the vortex veins at the equator becomes of some pathological value when the outflow of lymph through the canal of Schlemm is hindered, and is largely responsible for the symptom dilatation of the anterior ciliary veins. The optic nerve is the point of least resistance, its cribriform lamella representing one-third of the sclera. Venous pulsation of the retinal vessels is normal; arterial pulsation is pathological, due to glaucoma, mitral stenosis and syncope, anemia, or Basedow's disease. Arterial pulsation is, therefore, one of the earliest signs of increased tension.

There are three kinds of fluid in the eye: blood in the blood vessels, lymph in the lymph spaces of the uveal tract and intraocular fluids in the aqueous and vitreous spaces. The blood vessels within the eye are chiefly contained in the uvea; they anastomose freely with one another, thus favoring the compensation of circulatory disturbances. The amount of blood within the eye is subject to the alterations in the

blood vessels and is also influenced by changes in the shape of the iris and ciliary body, and by pressure from without—by the action of the surrounding muscles. The lymph, which is derived from the blood vessels, is dependent in amount on the blood pressure and is contained in two main lymph passages, the anterior and the posterior. The intraocular fluid is secreted by epithelium covering the ciliary body. Collins has demonstrated there are numerous tubular processes on the pigmented layer of the ciliary body, presumably glands which are concerned to some extent in the elaboration of secretion. This has been controverted by many German authors, especially Wintersteiner.

In lower animals—*e. g.*, the rabbit, in which the ciliary processes extend forward on to the back of the iris—this structure takes some part in the secretion but in man none of the aqueous is derived from the iris. All experimentors support Leber in every particular, namely, the intraocular fluid is solely produced by the ciliary processes, by a process of filtration, and that the sole factor determining the amount of transuded fluid is a difference of pressure between the blood in the capillaries and the fluid in the eyeball.

A few points must be remembered regarding the tension of the eye.

1st. Tension in the vitreous and the aqueous are equal.

2d. Increased tension first takes place in the posterior chamber. This pushes the iris and lens forward causing a shallow chamber, an early symptom of increased tension which may precede a glaucomatous attack for some time.

Refraction does not influence the normal tension of the eye.

Knapp, of the Basle eye clinic, in his experimental work on tension of the eye, reports a diminution of the normal tension with each succeeding decade.

Early observers record atropin producing slight fall of tension; eserine slight rise followed by a fall. But of interest are two laboratory experiences: 1st. Eserine causes an increase in the corneal curvature (Von Reuss); 2d. Grönholm and Leber in their investigations found that the rate of secretion is reduced by one-half and the amount of blood considerably reduced with eserine.

LYMPH EXCRETION.

The majority of the fluid passes from the posterior chamber through the pupil into the anterior chamber. None traversed the iris as has been held by Ulrich. That the pressure of the iris on the lens pro-

duces some hindrance, a physiological seclusion of the pupil, to the passage of fluids must be admitted. It is of slight moment however.

The aqueous passes out of the anterior chamber by three rounds, through the spaces of Fontana into the anterior ciliary veins by way of the canal of Schlemm. 2d, through the anterior surface of the iris. 3d, through the ciliary body, a small part of which it must be remembered enters into the small boundaries of the anterior chamber. Muel, Benoit and Asayama have succeeded in proving that some fluid is absorbed by the anterior surface of the iris. Experimentally, absorption has been prominent, especially in the location of the crypts, due to the fact that at this point the endothelial layers and limiting membrane are absent.

Generally speaking there are two chief theories, which have been advanced to account for the rise of tension in glaucoma—the mechanical theory and the hypersecretion theory. The mechanical or retention theory contends that increased pressure results from a mechanical obstruction which is offered to the outflow of fluids from the eye. This theory is based upon the fact, according to the researches of Knies, Weber, Collins, and Priestly Smith, that in every eye subject to glaucoma there is a predisposition to that disease as a consequence of certain peculiarities in its build. These peculiarities may be due to the obstruction to the canal of Schlemm by the root of the iris being applied against it, structural alterations in the canal of Schlemm or alterations in the consistency of the aqueous. If the glaucoma is of short duration the root of the iris may be merely pressed against the cornea and may be easily separated—in older cases it is usually adherent and often atrophic. Structural alterations in the ligamentum pectinatum may be due to a localized sclerosis—a theory advanced by Henderson in 1908. At the meeting of the American Medical Association at Atlantic City in June, 1912, sclerosis of the pectinate ligament was considered secondary.

The hypersecretion theory contends that increased tension is due to an increase of secretion as a consequence of some nervous form of irritation. De Wecker, Galezowski and Schweigger were the chief exponents of the hypersecretion theory. In a recent paper Lagrange holds to the hypersecretion theory and he believes it to be the primary cause of glaucoma, the hypersecretion being due to a nervous disorder (excitation of the sympathetic) and to an alteration in the blood or the vessels.

It has been shown that colloid solutions pass much less readily through the filtration angle into the canal of Schlemm than saline solution or normal aqueous. Alteration in the aqueous occurring as a factor in the pathogenesis of glaucoma is seen in serous cyclitis. As Collins puts it there are three factors which combine to give rise to increased tension in serous cyclitis: excessive secretion, albuminous character of the aqueous humor, accumulation of inflammatory cells in the spaces of Fontana.

Predisposing causes to glaucoma. Some are physiological others are pathological. The association of old age and glaucoma is based undoubtedly on a general or localized vascular sclerosis. Kummel in a series of thirty cases of glaucoma found that over seventy per cent. have increase of blood pressure. He could observe no relationship between the blood pressure and the different forms of glaucoma. Of these thirty cases there were only five which show no disturbance of the cardiac vascular and renal systems.

The liability of glaucoma increases up to and during the seventh decade, between sixty and seventy there is three times as much risk as between forty and fifty.

Priestly Smith has shown that while the liability to the simple non-congestive form of primary glaucoma is the same in men and women, women are more prone than men to acute congestive glaucoma.

Priestly Smith again pointed out the following facts. The size of the lens increases throughout life—liability to glaucoma increases throughout life; liability to glaucoma is greatest in eyes of exceptionally small size—a disproportion between the size of the lens and the size of the globe can be demonstrated in some eyes blinded by glaucoma.

An examination of 156 lenses from the dead subject taken in equal numbers from the six decades of life shows that the lens increases in weight and volume throughout life. Between 25 and 65 years of life it adds $\frac{1}{3}$ to its weight, $\frac{1}{3}$ to its volume, and $\frac{1}{10}$ to its diameter, whereas the structures surrounding the lens attain their full dimensions at the commencement of adult life.

Let us remember that in the hypermetropic eye (the short eye) the lens is the same size as in the normal eye, and there must be a deficiency of spacial relation in the anterior chamber.

Clinical symptoms explained from a pathological standpoint: 1st, anterior ciliary veins; 2d, rainbow colors, due to edema of the cornea; 3d, dilated pupil in the beginning of glaucoma is due to pain, later to

mechanical shortening of the iris from peripheral synechia; 4th, ectropion of the pupillary pigment, quite characteristic in appearance, gives us a clue to the atrophic parts of the iris. The contracting of the atrophic iris causes the ectropion, and is usually more pronounced in the upper part of the iris; 5th, rapidly progressing presbyopia is due to congestion of the ciliary process; 6th, contraction of the visual field.

Glaucomatous cataract must be distinguished from senile or traumatic cataract. Schnabel, of Vienna, has given much time to the study of cataract in glaucoma. He has seen nontraumatic cataracts develop immediately after the iridectomy and a microscopic study of those cases showed there were tears in the capsule, especially; undoubtedly the sudden relaxation of pressure was the cause.

CILIARY STAPHYLOMA. GLAUCOMATOUS EXCAVATION.

In closing I want to bring an article written by Prof. Bjerrum, entitled "Bemerkungen zur Pathogenese von Glaucoma," in the February number of the *Archiv für Ophthalmology*, Breslau, Germany. The author considers the symptoms of glaucoma of an inflammatory nature. He claims that a simple venous stasis occurring in the eye is incapable of producing chemosis of the conjunctiva and the upper lid. Again, if a stasis occurred in the posterior ciliary veins, the flow of blood would have an easier method of exit through the anterior ciliary veins. He calls attention to the inflammatory changes occasionally seen in primary glaucoma, namely, exudative processes in the anterior chamber occurring in the form of posterior precipitates on the surface of the cornea and posterior synechiæ, where atropin will reduce the tension instead of eserine. The other inflammatory symptom Bjerrum points out is the frequent occurrence of keratitis superficialis punctata. Drawing upon the laboratory for experimentation in his support, he quotes Groenholm's experience, that increased pressure in the vitreous in animal eyes produces anemia instead of a stasis of the blood. He calls attention to the fact, which American writers fail to interpret correctly, that von Graefe believed all the symptoms of glaucoma to be the result of increased pressure dependent on an inflammatory basis—serous choroiditis associated with hypersecretion.

1823 Chestnut Street.

OCULAR TENSION AND ITS RELATION TO BLOOD PRESSURE.

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TO form a proper conception of the term intraocular tension we must remember that the normal eye is an elastic capsule, the contents of which exert a pressure greater than that of the atmosphere. Although the intraocular pressure is not synonymous with ocular tension, the one changes with the other. Such variants as the size of the eyeball, corneal curvature and coefficient of elasticity of the enveloping tunics may for all practical purposes be disregarded; so when we speak of ocular tension, we mean relative compressibility or hardness, if you please, the resistance of the corneoscleral envelopes to the intraocular pressure.

Tension may be increased or decreased according to the amount of fluid and semifluid media retained as a constant to express the equation of the ocular circulation, secretion and excretion. Ocular tension therefore expresses the relative stress of the corneoscleral tunic as compared with the absolutes. The two absolutes are, of course, total absence of all stress and the opposite extreme, that of stony hardness in which case the fibroelastic tissue of the enveloping coat is stretched to its utmost and even beyond its capacity. Even the two extremes cited are more or less relative, yet they serve, when accurately measured, as marking the physiological limits of intraocular pressure.

For all practical purposes, the capacity of the capsule may be regarded as constant. Variations in intraocular pressure then usually indicate simply an increase or decrease of the contents of the eyeball, viz., the aqueous, vitreous and, most of all, the blood supply. Every increase or decrease in blood pressure results in a corresponding temporary alteration in the ocular pressure. This temporary change is, however, quickly compensated for by a reciprocal alteration in lymph excretion, the result being that the volume of the contents remains fairly constant and the intraocular pressure shows no prolonged change. So we find that holding the breath or indulging in great muscular exertion increases the blood pressure and with it the

ocular tension, but the latter soon results in increased excretion of blood and lymph so that the ocular pressure soon drops again to normal. The converse is equally true, as evidenced by evacuation of the aqueous during operative procedures.

Disregarding extraneous causes of increased tension, such as pressure from without exerted by the eyelids, extraocular muscles or tumors of the eyeball or orbit, there is in a general way but one method of effecting a prolonged alteration of ocular tension and that is by the loss of compensation. Hence anything which increases the ocular contents without compensating excretion produces a rise in tension. This can be done either by mechanically blocking the normal excretory channels, or by so altering the normal ciliary secretion as to interfere with its ready interchange.

We have fortunately arrived at a point where we are able to discard the inaccurate, unscientific, if not ludicrous method of measuring ocular tension by digital palpation. There are no less than ten good and sufficient reasons why the procedure of feeling an eyeball and then attempting to express the result by one, two or three is absolutely without sense or warrant. These reasons are: 1. Lack of an accurate unit of measurement; 2. Resistance of the lids and chondral tissue; 3. Compression of the orbital fat and cellular tissues; 4. Hardness of the digital tissues; 5. Interpretation of tactile sensation; 6. Sensitiveness of the tactile nerves; 7. Judgment of the comparative sensation; 8. Conception of normal tension; 9. Region and area palpated; 10. Variation of technique and personal equation.

Most, if not all, of these objections are eliminated by the new Schiotz tonometer which makes it possible to measure the depth of the indentation produced upon an eyeball by a given weight. The instrument consists of a small metal rod in a sleeve. The bottom of the sleeve is a concave surface having precisely the curve of the average human cornea. On the upper part of the frame is a scale horizontally placed and a long pointer indicator, L-shaped at its lower end, is attached above the movable rod so that its short process rides upon the upper end of the rod. As the rod moves downward in the sleeve the indicator moves along the scale. Owing to the length of the indicator, its movement on the scale is about 20 times that of the little rod, thereby reducing the possibility of error to the minimum. Four different weights are furnished with the instrument, a 5 g., 7 g., 10 g. and 15 g. As a rule, I employ the 7 g. weight, but any

of the others may be substituted in selected cases. The eye previously having been cocainized and the desired weight attached to the little movable rod with the patient in a reclining position and eye directed upward, the lids are separated and the instrument applied directly to the cornea. The weighted rod will, of course, indent the cornea. The indentation is readily read off on the horizontal scale and is obviously inversely proportional to the hardness of the eyeball.

A chart accompanies the instrument. On it are plotted four curves, one for each of the weights named. By this means the amount of indentation produced by the weight used is readily transcribed into millimeters of mercury.

Without going into the details of experimental proof, suffice it to say that the fluid content of the eyeball is produced by a process of filtration through the blood vessel walls and the epithelium of the ciliary processes. The "secretion" of the ciliary body is not truly a secretion in the physiological sense of the term but an osmotic process, the passage of fluid through a dialyzing membrane.

There are no lymphatics in the eye and the iris and vitreous have no secretory function, contrary to the erstwhile contention of certain investigators.

If this premise be correct, there must at all times be a considerable difference in the tension of the eye and the pressure within the capillaries, otherwise no filtration could take place. The kidneys offer a parallel case, the difference in pressure of the aorta and ureter being at least 40 mm. Henderson and Starling have proved by a series of experiments that the difference between arterial pressure and intra-ocular tension shows an average of 84 mm. But what is of far greater importance, they also proved that the rate of secretion depends upon and varies with the difference between blood pressure and the tension of the eyeball. In other words, the latter remaining constant the rate of secretion varies directly with the blood pressure. And finally they proved that the specific gravity of the secretion increased directly with the blood pressure and inversely with the ocular tension. For if the blood pressure is increased, the tension of the globe remaining constant, the resulting secretion shows a constantly increasing percentage of solids. The same thing occurs if the blood pressure remains constant and the ocular tension is reduced by puncture of the anterior chamber. Here we have the phenomenon of reduced amount of secretion with increased specific gravity. The significance of these facts will be referred to hereafter.

The first point I wish to make is this: While ocular tension is maintained by the blood pressure and directly affected by any change in the arterial pressure, such change is a transient one owing to compensatory excretion. Permanently increased tension is not due to high blood pressure directly but may coexist with it only in the absence of adequate compensation. High arterial pressure is frequently found associated with normal ocular tension and without any apparent deleterious effect upon the vision except in the presence of arteriosclerosis.

CASE 1.—Mrs. W., æt. 69. Chronic interstitial nephritis. Urinalysis shows hyaline and granular casts, epithelial casts, pus cells and traces of albumin. Sp. gr., 1014.

Ophthalmoscopic examination disclosed hazy vitreous. Left eye evidenced retinal degeneration and absorption, old and recent hæmorrhages, some sclerosed vessels above the disc. Ocular tension 18 mm. Blood pressure 200. Under iodides and prolonged rest, vision improved from 20/120 to 20/20 with correcting lenses. Ocular tension a year later was normal while blood pressure remained at 180.

CASE 2.—Miss I., æt. 68. Sudden loss of vision in o. d. while stooping. No pain. Both eyes are blurred. Has recurrent attacks of epistaxis. Vision in right eye 20/80; in left eye 20/60. Ophthalmoscopic examination shows hæmorrhagic retinitis. Many small ill defined whitish spots, giving the retina a mottled appearance; numerous small hæmorrhages in the periphery. Disc pale with strands of scar tissue over vessels. Marked arteriosclerosis with atypical "cork screw" capillaries. Media clear. Visual field markedly contracted.

Urinalysis showed traces of albumin. Ocular tension 19 mm. Blood pressure 180 mm.

Under rest treatment and restricted protein diet, vision improved and with correcting lenses showed 20/30 in the right eye and normal in the left after four months. The blood pressure was taken every month and varied from 180 to 220 mm. Regular urinalyses were made at frequent intervals. The patient led a quiet life, retained good vision with normal ocular tension until she died a year later of apoplexy.

CASE 3.—Mr. P., æt. 68. Recurrent nasal hæmorrhages so severe as to weaken the patient greatly. The bleeding area was cauterized. Although the patient's eyes were normal and vision excellent the fundi were examined and tension taken. The tonometer showed

pressure of 20 mm. Urine was found normal. Blood pressure 240 mm.

Some time later the patient returned. There had been no recurrence of the hæmorrhages but he complained of violent head noises. Believing these to be due to labyrinthine congestion, he was given regular treatments with the D'Arsonval current, and some time after returned to his occupation as road salesman. I saw him a year later at which time his blood pressure was 250 mm., but he was apparently in excellent spirits and permitted another measurement of the ocular tension which the tonometer proved to be normal.

CASE 4.—F. W., æt. 24, a husky German, whose right eye had been injured by a bullet years before; a fragment of metal had been removed by the magnet. Pupil now eccentric due to an anterior synechia of considerable extent, the iris having been incarcerated in the corneal wound. Vision of $\frac{1}{6}$ was improved with a strong cylinder to 20/60. Ocular tension was 23 mm., blood pressure 125 mm. or normal. The left eye showed a tension of 18 mm., had congenital defect of fundus and vision of less than $\frac{1}{10}$.

CASE 5.—P. G. C., æt. 69. Progressive myopia with cataract in right eye. Counts fingers at 5 ft. No improvement with lenses. Vision has been failing for 40 years. Tension 16 mm. Left eye showed tension 19 mm., while the blood pressure was 145 mm.

The next point I wish to make is this. High blood pressure is frequently found to coexist with certain morbid processes of the eye with or without increased ocular tension. As examples of these, we find the frequent association of increased arterial pressure with primary glaucoma and with cataract. Has this association any significance beyond that of a mere coincidence and, if so, what explanation can be offered for such relationship?

Viewed in its broadest aspect, primary glaucoma depends upon certain definite factors which act as predisposing causes; these are 1. a small cornea; 2. a large lens. Either or both of these make the development of glaucoma exceedingly probable. It requires but an agency to upset the balance of ocular secretion and excretion to establish the disease with its train of disastrous sequelæ. A hæmorrhage or merely a temporary congestion induced by a slight trauma or incident to the climacteric in certain females are the most frequent exciting causes. As a matter of fact, the disease is more common in females than in males and reaches its greatest frequency between

the 50th and 60th years when capillary hæmorrhages are most prone to occur.

Whether the immediate cause be a congestion or a hæmorrhage, I believe the *modus operandi* is much the same. In the former the heightened blood pressure causes increased secretion which in the presence of altered arterial walls is of a higher specific gravity than normal so that the already impaired drainage is further embarrassed and compensation fails. In the case of hæmorrhage the lymph mixed with blood clogs the outflow channels and failure of excretion follows.

What practical deductions are justified by the above facts? I would suggest the following:

If increased blood pressure coexist with glaucoma, the practice of relieving tension either by opening the anterior chamber or by scleral puncture is obviously fallacious inasmuch as the resulting difference between blood pressure and eye tension must result in rapid reformation of the ocular fluids of a much higher specific gravity and osmotic coefficient. In fact, it would seem advisable that no operative measures be undertaken without previously, at least temporarily, reducing the blood pressure. Only by so doing can we guard against expulsive hæmorrhage, which is the most dreaded complication of the operation, and only by so doing can we restrict the formation of ocular fluids and reduce their percentage of solids.

That high blood pressure is a frequent concomitant of senile cataract has been noted by recent writers yet, so far as I am aware, no explanation has been attempted. If the coexistence of high blood pressure and cataract be anything more than a coincidence, the altered specific gravity of the ocular fluids and loss of tonic equilibrium suggests itself as the most obvious key to an explanation. Wogenmann, Van Geuns, Von Hippeland and others produced cataracts by section of the posterior long ciliaries and ligature of the *venæ vorticosæ*, either of these procedures serving to alter the blood pressure and specific gravity of the ocular secretions.

The osmotic coefficient of the aqueous and vitreous are practically the same and these two media stand in definite tonic relationship to the lens and its capsule. The latter may from its osmotic properties be regarded as a bladder filled with a saline albuminous solution. In the isotonic vitreous and aqueous no change occurs. When these media become hypertonic the lens gives up water and shrinks; when rendered hypotonic, the lens takes up water. In both cases the lens

becomes opaque. Yet this clouding is not due to the absorption or abstraction of water, for the lens may be removed from the eye and either dried or immersed in glycerine without losing its transparency. The clouding can be explained only on the basis of loss of tonic balance between the lens and the ocular fluids, for the artificially clouded lens can be readily cleared by again rendering the fluids isotonic. When we consider that a solution of sodium chloride of only .75 per cent. is sufficient to produce lenticular opacity, this solution being hypotonic to the lens, and that a stronger solution of the same which is hypertonic to the lens produces a like result, are we not justified in looking to osmotic unbalance as an important factor in the causation of senile cataract? And when we recall that both aqueous and vitreous contain sodium chloride and grape sugar in definite proportions to render them isotonic to the lens, the relatively slight addition of sugar in diabetes would amply suffice to upset the preëxisting balance. If it is true, as animal experiments have shown, that increased blood pressure results in the secretion of ocular fluids of higher specific gravity and osmotic coefficient, may not this factor throw some light on the frequent association of arterial tension with cataract?

Perhaps I am anticipating, but it seems to me that further studies along this line will be prolific of much valuable knowledge relative to the etiology of cataract and that the regulation of blood pressure may prove a valuable therapeutic agent in the nonoperative treatment of this condition.

822-4 Rose Building.

Gonorrheal Conjunctivitis. Fifteen severe cases treated by local application of steam, to kill gonococci. As soon as eyelids can be everted—iced compresses having been applied—conjunctival sac is syringed with potassium permanganate solution, dried with gauze, and treated with steam, neighboring skin being protected with linen or wet gauze. Where chemosis is marked, ocular conjunctiva is also steamed, care being taken to avoid the cornea. Ten patients with corneas uninvolved rapidly and completely recovered, discharge early ceasing; in the 5 other cases conjunctivitis was cured, together with, in 1 instance, cornea. Steam treatment considered superior to silver nitrate.—*Abs. Mo. Cycl.*

SOME OBSERVATIONS IN GLAUCOMA WITH SCHIOTZ'S TONOMETER.

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THE tension of an eye is often not a negligible but an essential factor in diagnosis and in learning the effects of therapeutic measures. Palpation by the finger tips to determine the tension is always available, easily applied and fairly accurate. If the knowledge thus readily acquired is sufficient for all practical purposes, why not be pragmatists and be satisfied?

I have used the Schiotz tonometer for only a few months, but a hundred and one observations with it on thirty-four patients have fully convinced me that palpation by the finger tips is not always sufficient for practical purposes, that at times it is misleading, and that it cannot acquaint one with slight variations in tension either in the course of disease or from remedial agents. I therefore place the instrument in a class with the thermometer and the sphygmomanometer. Its use can never supplant palpation as a routine test in examining patients, but when the important case is encountered or there is doubt as to the diagnosis and accuracy is essential, then it is of real value. This statement implies that I consider the tonometer accurate. I believe it is when accurately applied. It is not necessary to describe the instrument, for it has been repeatedly pictured and described in the journals. I cannot compare it with the Gradle or Stephenson-Wolinski tonometers for I have had no experience with them.

There are some points regarding the application of the Schiotz tonometer which I have not seen mentioned or sufficiently emphasized. First, and most important, is that it requires the services of two persons to secure accurate registerings. The patient should be lying down upon a high table, like an operating table, and the eye anesthetized with holocain or alypin. The surgeon must instruct the patient to direct his eye exactly upward. Then when the anteroposterior diameter of the eye is perpendicular, the surgeon brings the tonometer close to the cornea, but not in contact, and sees that the long arm of the instrument is perpendicular. From that time on he must keep his

vision intently fixed on the position of the cornea. If the position is correct, he now places the foot piece of the instrument on the center of the cornea, and if there is any rotation of the eye the instrument should be quickly raised. If this precaution is observed, no trauma will result. During this time his assistant is to constantly watch the scale on the instrument so that when the surgeon sees that the position is perfect and indicates that fact to his assistant the reading can be instantly made. If the surgeon turns his attention from the eye of the patient to the scale the patient in that interval may rotate his eye, the reading be inaccurate, and some trauma to the corneal epithelium result. An oculist told me he would not use the instrument because he had seen severe corneal irritation result from its application. I have seen nothing of the kind and do not believe it can occur if the above directions are followed.

The second point is that it has been recommended that three readings be taken and the average of these accepted as the correct tension. I am strongly opposed to this plan. The average of three incorrect measurements does not give the right tension. Considerable variation in the readings will occur if the footpiece is not in the center of the cornea. The horizontal diameter of a cornea varies from 10 to 12 millimeters. The diameter of the footpiece is nine millimeters. This allows a small margin of cornea to appear around the footpiece and is a great aid in determining when the tonometer is in a correct position. When it is in the correct position I have found wonderful uniformity in the readings. Any material variation in the different measurements always suggests to me faulty technique or a patient unable to control the movements of the eye. If the vision is lost in one eye and the vision of the other is being taken it is difficult for some patients to steadily fix the eye when the vision is shut off by the footpiece coming in contact with the cornea.

In connection with the use of the tonometer I have recorded a number of somewhat interesting observations. Helmholtz adopted 7.8 millimeters as the radius of curvature of a normal cornea. With Javal's ophthalmometer I have determined the radius of curvature in each case. It has varied from 6.9 millimeters to 8.4 millimeters. The concave surface of the footpiece has a radius of curvature of 15 millimeters. Probably an eye with such a radius would never be encountered. If, however, the radius of corneal curvature were greater than fifteen millimeters, the tonometer would not register the tension correctly.

The blood pressure has been noted in each case, and in many the vessels of the sclera studied with a Zeiss binocular corneal microscope. These observations more surely confirm me in the opinion I expressed three years ago before this society, in a paper on "Blood Pressure," that arterial sclerosis may be a predisposing cause but is not the principal factor in producing glaucoma.

It has been suggested that the extraocular muscles play a part in maintaining the ocular tension. I took the tension of a sixteen-year-old boy with total ophthalmoplegia, and it was 25 mm. Hg. in each eye; this is the upper normal limit. In a man sixty-two years old, with external ophthalmoplegia, the tension was 15 mm. Hg.; this is the lower normal limit.

One of the great surprises to me has been the rapid and frequently great reduction of tension secured by galvanism. The negative pole is placed on the eye and three to five milliamperes given for eight to ten minutes. I have found the tension to drop 5 to 30 mm. Hg. from this treatment. It certainly should be more frequently employed in nonoperable cases and with those for whom it seems best to try non-surgical treatment.

For a long time I have used galvanism, massage, heat, eserine, subconjunctival injections, etc., but not until I had the tonometer was I able to determine the relative value of these measures. Among these agents galvanism and eserine have yielded the most uniform and satisfactory results. I am still somewhat in doubt as to the value of subconjunctival injections in glaucoma. In three cases of simple glaucoma injections of five per cent. sodium citrate either raised the tension or did not change it. I have noticed that subconjunctival injections, even of sodium chloride, have a tendency to raise the tension. Professor de Schweinitz told me this had been his experience. However, in a case of hæmorrhagic glaucoma in which the vision was lost in one eye previous to any treatment and the other reduced to counting fingers, subconjunctival injections of sodium iodate one to one thousand have improved the vision to 10/200 and the tension has remained for months at 25 mm. Hg. In the eye not treated it is 70 mm. Hg. No eserine was used. I have repeatedly confirmed the findings of Dr. Grönholm, that on bright days and after moderate use of the eyes at near work the tension is slightly reduced; a reduction of 5 mm. Hg. is not unusual. This fact is of some therapeutic value.

Among surgical measures iridectomy, if properly made, still holds the

lead. I have recently taken the tension of five persons upon whom I had performed iridectomy from three to nine years ago. In one the tension had risen to 62 mm. Hg., in the other four it was within the normal range.

The simple trephine operation seems to give promise of safe and satisfactory results. In a case of acute congestive glaucoma treated for three weeks with eserine with no benefit, the tension was 60 mm. Hg. With a Von Hippel trephine I made a $2\frac{1}{2}$ mm. opening. No irritation followed, the pain and congestion were quickly relieved and three weeks after the operation the tension was 23 mm. Hg. Also in a case of simple chronic glaucoma with tension in the right eye of 45 mm. Hg. and in the left of 50 mm. Hg., I did the trephine operation on the left eye and the tension was reduced to 15 mm. Hg.

75 S. Fitzhugh Street.

Poisoning with Naphthalene.—Prochoronik prescribed 0.25 g. of naphthalene, four times a day, for a boy six years old suffering from oxyuria. After seven doses, the patient began to vomit and became stuporous and restless. The pulse was 100, strong, and the spleen was distinctly palpable. Castor oil and enema were ordered, but on the following morning there was a decided change for the worse and jaundice appeared. The urine was scanty and loaded with albumin. There was absolutely no reaction to stimulants; respiration and heart action became progressively worse and soon death set in. At the autopsy a persistent thymus and cloudy swelling of the organs were found. The dose given in the text-book varies from 0.05-0.5 g. It is possible that in this case there was an idiosyncrasy towards the drug or that the castor oil did not act sufficiently so that a relatively large amount of naphthalene was dissolved and absorbed. The author concludes that it is advisable to employ some less harmful drug in the treatment of oxyuria.—*Therap. Monatshft.*

GLAUCOMA—ITS CAUSE AND CURE DEMONSTRATED IN THE LABORATORY.

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Cincinnati, O.

GLAUCOMA still continues a subject of great ophthalmic interest. Treatment of it still taxes all our resources. Therefore to this clearing house of medical and surgical ideas we bring not our own contribution but that of another who has by indefatigable laboratory work shed a flood of light upon those larger questions of which glaucoma is a part.

To those who are not acquainted with the discoveries of Martin H. Fischer, professor of physiology in the University of Cincinnati, an all too brief review of his work as given in detail in his books on "Edema" and "Nephritis" will be most welcome, we are sure.

The problem as stated by Fischer, to which attention must be first directed, is the problem of the presence of abnormally large amounts of water in tissues and tissue spaces. It is a phase of that greater problem: Why protoplasm holds any water at all, and why it holds under normal circumstances so nearly constant an amount. It is easily seen why an interest in edema should have overshadowed the greater and really simpler problem, for edema has a human interest that is entirely lacking to the question of why protoplasm generally holds water. That attempts should in consequence have been made to answer the question of edema first is not surprising. The way and the means adopted may however well serve as an example of the shortcut methods which clinicians and pathologists have only too often adopted in order to obtain light, and with disastrous results. Since edema constitutes a pathological state of interest chiefly in man, various hypotheses were formulated to account for the condition on the basis of his complex anatomy, such for instance as his circulatory system. When experiments on the higher animals failed to bring the corroborating evidence which should convert the shadowy hypothesis into the healthy theory, recourse was had to the still more shadowy properties of the living cells. To this day the accepted explanation of edema is still an ill defined mixture of the physical concepts of pressure and filtration with the mysterious forces of living matter.

"A little thought will show that variations in the amount of water held by cells and tissues—variations analogous to a state of edema in vertebrates—occur in a great variety of animals and plants. To cite but a single example, and one common to both plants and animals, mention may be made of the widespread plasmolytic phenomena. Under a variety of circumstances single cells may be made to absorb enough water to burst. These are 'edemas' as true as any ever observed in man or produced experimentally in a dog or rabbit. Such reflection should by itself have created suspicion against any conception of edema which demands for its production a circulatory system or any structures not common to all protoplasm, vegetable as well as animal.

"It will not seem strange after what has been said that the best contribution toward the solution of the problem of the ways and means by which cells and tissues absorb water has in recent years really come through the plant physiologists. Not led into erroneous paths through the presence of circulatory systems at all similar to those found in the higher animals, the plant physiologists early sought the explanation of the variations in the amount of water held by the plant tissues in the cells themselves. As we shall see very shortly, this is where the problem belongs; the attempts of later years to make differences in osmotic pressure responsible for the movement and storage of water in animal cells as well as in plant cells under normal and pathological conditions cannot be too highly commended. While the theory of osmotic pressure is incapable of accounting for more than a small portion of the phenomena observed—even in plants—the great value of an attempt to explain variations in the water content of animal and plant tissues on a healthy physicochemical basis cannot be questioned.

"To a consideration of the various hypotheses and theories which have been proposed to account for edema we shall have occasion to return later. We will give our attention first to a series of experiments which prove conclusively that the cause of edema resides in the tissues. After this has been done we shall attempt a physicochemical analysis of the forces active in the process."

From the foregoing quotation we are prepared for the statement that, pathologically speaking, glaucoma is a local edema and all its symptoms are referable to increased ocular pressure which depends on the abnormally large amount of water held by the eye in this condition.

Without passing in review the various theories in explanation of glaucoma and its symptoms, Fischer demonstrates that the most intense grades of glaucoma can be induced experimentally in the eye in the entire absence of any circulation.

The eye of a sheep or bullock or any lower animal will swell by absorbing more water in the solution of any acid than it does in pure water, but the amount of this swelling is greater in some acids than in some others. The colloids will take up most water in hydrochloric acid, almost as much in a solution of nitric acid of the same concentration and less in acetic and sulphuric acids.

The cause of glaucoma may therefore reside in the tissues of the eye itself because through certain changes, depending upon the general state of the system, the colloids absorb an increased amount of water; the sclera, cornea, lens and vitreous humor are subject to the same conditions of watery absorption as other tissues of the body. In Fischer's experiments with enucleated eyes, the source of the chemical changes occurring within the eye which increase the affinity of the ocular tissues for water is the acid solution into which the eye has been dropped; in the body it is the liquids flowing about or through the eye.

Now as to the relief of glaucoma; laboratory experiments show that the presence of any salt in the acid solution in which the eye has been dropped markedly decreases the amount of water that the eye will take up from that acid solution. Indeed, there exist some salts which not only inhibit the swelling of eyes in acid solution but even decrease the tendency to such swelling. These salts are the citrate, tartrate, sulphate and phosphate of sodium and of potassium. In glaucoma, sodium citrate is best adapted for use. The chemically pure salt in from 4.05 per cent. solution to 5.41 per cent. solution is used for subconjunctival injection; five to fifteen drops will be sufficient. Alternate hot and cold compresses laid over the eye will ease any pain dependent upon the injection.

The stronger solution has osmotic pressure above that of the human tissue fluids and is used for the more severe cases. This treatment will rapidly reduce the tension and later in the treatment the weak solution may be mixed with a 0.9 % solution of sodium chloride.

The detailed report of 10 cases so treated will be found in the *Annals of Ophthalmology* for 1910.

The duration of the reduced tension will be from 3 to 6 days,

sometimes even more, with removal of all the glaucomatous symptoms, excepting that of blindness due to structural changes. To obtain a complete cure it will be necessary to secure a removal of the conditions which made the glaucoma possible in the first place. To this end we can but reiterate what we have already had the honor to present to this society at previous meetings, namely: first, diet regulation; second, a sufficient amount of water being taken by the patient between meals; third, plenty of oxygen at all times, day and night, in order to properly oxidize all elements in the blood and tissues.

These points may be left for discussion, as the purpose of this paper is to call attention to Fischer's work and to state that he has made a brilliant and philosophical presentation of his experiments; we have undertaken to introduce the matter to the members of this society because case reports have not found their way in any great volume into recent medical literature; those who have had the personal help of Dr. Fischer, or any of his coworkers, in the therapeutic application of the principles involved are gratified that the clinical results corroborate the laboratory findings.

Traction Building.

Keep the Machine in Repair. Think for a moment. A man who would no more run his motorcar on deflated tires or with sand in the gear box than he would use sulphuric acid for motive power will keep going right on at his business when the tread of his own physical mechanism is flattening out and the gear box of his mind is filling with the wrong kind of grit. The impatient optimism that shakes off a vague oppression with the assurance "I'll be all right tomorrow," has had as much to do with lengthening out the list of bankrupts as any other one thing I could mention. You can't correct a bad condition by persisting in the things that cause it. You will only make it worse. You can easily enough, if you are obstinate enough, make it so much worse that it will "be the death of you," or, anyway, put you out of business.—*National Food Magazine.*

A NEW METHOD OF MATERIA MEDICA STUDY NECESSARY.

PHILIP RICE, M. D.,

San Francisco, Cal.

THE need of a new method of materia medica study is becoming daily more apparent. The steady increase in the number of remedies and corresponding growth in the symptomatology, combined with the urgent demands of other branches of medicine, make the present arrangement absolutely impracticable. And for the specialist, limited as he is in his field, it is in many cases utterly beyond the range of scientific application, assuming that the totality of the symptoms is the sole basis of a scientific prescription.

The method of study employed from the time of Hahnemann to the present day—and it is the same to-day that it was one hundred years ago—is a slow and laborious memorizing process with which but an insignificant amount of knowledge of the subject can be acquired, and upon even this our hold is most uncertain. But there is still a more serious objection to it, namely: That the symptoms, no matter how characteristic of a remedy, recorded as they are do not give us any insight whatsoever into the circumstances by virtue of which the morbid process acquired its peculiar expression. The characteristic mental symptoms of arsenicum, for example, of great anguish, fear, restlessness, etc., do not by themselves give us any clue as to why they are as they are. We simply find them so and try to remember them as belonging to this remedy. But it is perfectly clear that even when we are able to do so we have no real understanding of the remedy.

The task of finding a method which we shall be able to employ scientifically in the study of drug pathogenesis and successfully apply to the problems presented in a variety of morbid conditions, though at first thought apparently impossible, should engage the best thought in us. That with such a method our work would be made easier and our successes be far greater than either are at present can hardly be doubted. The question is: Is the accomplishment of such a method within the range of possibility? My answer is: From the observa-

tion of certain facts of daily and common experience I am firmly convinced that it is entirely possible. It can hardly be that the causes of the most common experience in our work, the factors behind the most striking occurrence, are to remain veiled in impenetrable mystery. Such a thing is unthinkable.

Let us begin with a brief consideration of the two most frequently observed, yet most universally ignored, problems in the entire field of medical practice, namely: I. That no two persons react to the same drug in the same way or to the same degree. II. That the same morbid process in two or more persons is attended by marked differences in clinical appearance. The same factors we can easily see are equally involved in the two problems, and the solution for one will answer equally well for the other.

Difference in reaction of two persons to the same disease or drug signifies *individuality*, and difference in degree of reaction signifies *predisposition* and *susceptibility*. Organic reaction of necessity implies organic development, for without an organism there can be no reaction; and that the degree and character of the reaction—function—is dependent upon the degree and character of the development of the organs and parts and upon their correlation is a fact fully confirmed by the science of physiology.

The first step then necessary in our study is the study of the function of development and the development of function. We must come to know how the various organs and systems came to be what they are; how one organ or system influences another in the process of growth, thus modifying the function; and how environment modifies all. When once we shall be able to do all this then we shall be able to determine the size, character of structure and correlation of the various organs, know the true function of each organ, and from this knowledge be able to determine the character of function in a morphological variation when such is presented. And that morphological variations are constantly presented we well know. For example: We all have a heart, arteries, veins, lymphatics, connective tissue, etc., but we do not have the same parts equally developed; and since it is true that the character of the function is determined by the character of organic development and the correlation, morphological variation is followed by physiological variation. And this means that variation in response to stimuli, whether these be drugs or disease, is also due to the same variation in structure.

The person who responds to the influence of arsenicum and develops the characteristic symptoms of the drug does so because he is organically so constituted that this result is possible. In another such a result is not at all possible, and simply because he is differently organized. It is exactly the same as with electric apparatus. From one instrument I get a Galvanic current from another a Faradic and from still another a high-frequency—and all from the same wire. The character of the effect is determined by the character of the instrument.

In the records of the proving of belladonna conducted by our honored colleague, Doctor Bellows, marked differences in degree of susceptibility are found; and likewise do we find marked differences in the temperaments of the provers. We find that some persons were made sick by the 3x potency, while others got fat on 100 drops of the tincture daily. This striking difference in degree of susceptibility was due entirely to the difference in the character of the organic constitution or *temperament* of the provers. Had they all been built alike the effects would have been alike.

To have a clear and comprehensive understanding of the pathogenesis of a drug it is necessary to have this of the temperament of the provers; and it is clear that this latter should be made a part of the symptom record. A full description of the persons who were susceptible to belladonna 3x would have greatly enhanced the value of the records, for the persons susceptible to a particular drug are predisposed to morbid conditions for which that drug is the simillimum. On the other hand, those who can grow fat on 100 drops of the tincture of a drug are very little or not at all likely to ever develop a combination of symptoms that will require this drug for a cure.

This is studying materia medica at its fundamentals. This is, as De Giovanni says, “extending the knowledge of indications beyond the field of symptoms into that of facts, investigated in the individual organic conditions, according to the principles of general and special morphology.”

But this also means a reproving of our materia medica, and on a radically different basis from the old; not that the old was wholly faulty, but that new light be shed on problems which are now utterly beyond our ken. Such provings I am now conducting and will later report.

608 Head Building.

HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

DEPARTMENT EDITOR, PHILIP RICE, M. D.,

San Francisco, Cal.

Duboisia is gelsemium vertigo with a pale face.

Atropin sulph. is neuralgic belladonna.

Ferrum phos. is asthenic belladonna (weak pulse).—MOFFAT.

Hepar in Acute Cough. Miss ———, age thirty-five years, school teacher, my patient for twenty years. Oct. 16, 1911, she came for relief from a cold taken a short time before and which was now interfering with her regular work by hoarseness. General congestion of the pharynx and larynx, faucial tonsils were normal in size, lingual tonsils considerably hypertrophied. She complained of a rawness along the trachea, and the cough was very annoying. She had considerable indigestion and much flatulence, worse toward evening. *Lycopodium* 30 improved all somewhat. Oct. 26th, the cough still remaining, I removed the lingual glands, after which the cough subsided.

Oct. 31st she suddenly developed a complete aphonia, without any pain, but the attempt to use her voice in school made the throat feel very tired, and an extreme rawness in the larynx developed in the course of a day. *Carbo vegetabilis* 30 seemed to relieve this condition, and on November 4th she reported no rawness, voice clear in the morning, but it grew hoarse by use. Very little cough. *Phosphorus* 30 was given every three hours, and in a few days she considered herself quite well.

Later took cold, and Dec. 6th she came to the office with a constant croupy cough, aggravated by talking, and a profuse watery discharge from the nose. Examination disclosed a very tender right middle turbinal in contact with the septum. *Spongia* was given but it did no good, and on the 7th the cough was very concussive, and it seemed to her that her head would split when she had a paroxysm. The pharynx and larynx were sore and I gave her *bryonia* 6th but without results. Then I did some repertory work, as follows:

Profuse perspiration from every slight exertion, and especially after every cough paroxysm. Cough worse by eating anything cold; cough aggravated from lying down.

"Perspiration from slight exertion has *AGAR.*, *ars.*, *ARS.-IOD.*, *brom.*, *bry.*, *CALC.-CARB.*, *calc.-sul.*, *chel.*, *CHIN.*, *chin-ars.*, *cist.*, *cocc.*, *eupi.*, *FERR.*, *FERR.-IOD.*, *ferr.-m.*, *gels.*, *GRAPH.*, *hepar*, *IOD.*, *kali-s.*, *LYC.*, *merc.*, *NAT.-C.*, *nat.-m.*, *nat.-p.*, *NAT.-S.*, *NIT.-AC.*, *PHOS.*, *PSOR.*, *RHUS-T.*, *SEP.*, *sil.*, *SULF.* (Kent, p. 1261, 2d Ed.)

"Perspiration after coughing:" By elimination we have: *ARS.*, *calc.*, *HEPAR*, *merc.*, *PHOS.*, *rhus* and *SEPIA*. (Ibid. 1260.)

"Cough aggravated by taking cold food." This leaves but one remedy which has all three of these symptoms peculiar to the patient, and that is *hepar*. (Ibid, p. 759, 2d ed. 777.)

Hepar 30, a dose in water, every two hours. Improvement set in within a few hours, the perspiration being the first to leave. The cough speedily ameliorated; the third day after commencing hepar she reported that every unpleasant symptom had disappeared and she declared that she was perfectly well.—John B. Garrison, M. D., in *No. Am. J. of H.*, Aug., 1912.

Nightblindness and the Division of Function in the Eye.—The theory of dual functions in the eye, namely, vision in bright light and vision in poor light, or twilight vision, has received considerable attention in the past year. This theory is of great interest, especially in those cases of congenital color blindness which are viewed as a failure of the substratum of vision in bright light and in cases of night blindness, or nyctalopia, which can be viewed as being due to a failure of the organ devoted to twilight vision.

The function of the rods and cones of the eye may be divided, according to the illumination, into five grades. The first grade would be strong light in which through a considerable destruction of the visual purple or perhaps through restrictive action, any perceptible function of the rods is abolished.

The second division includes still a high degree of light, in which the cones, the sensitiveness of the excentric parts of the field being less than the fovea.

In the third division is included that degree of illumination in which the visual acuity of the rods and cones is apparently the same, though the adaptation of the periphery is really greater than that of the fovea. This area includes the illumination of 50 to 1 M. K.

In the fourth division he includes that degree of illumination in which the function of the rods is much greater and is practically the main reliance of vision, though the cones still have some visual power.

That the adaptation of the cones to the quantitative and qualitative perception of light is less than that of the rods is especially seen in the rod free macula, which takes three to four minutes before it can adapt itself to greatly lessened light.

The adaptation of the rods to lowered light is much more rapid and this is the function largely exercised by them.

The phrase "adaptation function" is proposed by Kries, of Freiburg, to include not only the rapidity of adaptation to lessened light, but also the rapidity with which this sensitiveness develops after the sudden exclusion of light, theoretically testing the vitality of the visual purple.

This illumination includes the area of 1 to 1/30 M. K.

In the fifth division, an illumination of less than 1/30 M. K., the function of cones is abolished.

The paper treats of the practical application of these divisions in the illumination of streets at night and its relationship to nyctalopia and should be read in the original to be appreciated.—*Kl. Mon. f. Augenh. Abst. Ann. of Ophth.*, July, 1911.

JOURNAL CLINIC.

Phenol-camphor—Disinfectant. A nearly clear (clarified by adding not over 1 per cent. of alcohol) transparent limpid oil consisting of carbolic acid crystals one part and gum camphor two parts by weight; it has the bactericidal properties of carbolic acid but not its toxicity for animal tissues. It does not irritate the mucous membrane when used as a lubricant for catheters, and as a rule it causes no pain nor discomfort when applied to fresh or granulating wounds. Offensive odors from cavities are quickly neutralized. The pungent odor is that of camphor rather than carbolic. Applied to the skin it produces first a glow and sensation of warmth, attended by an increased pliability.

All the commonly encountered bacteria of surgery were invariably (in the Pathological Laboratory of Boston University) inhibited in growth by solutions of one-half of one per cent. and anything above it.

For three years Dr. Packard has used no other disinfectant for sterilization of the hands and field of operation. It is poured—from an oiler—after scrubbing with soap and rinsing in sterile water; it is rubbed lightly over the field of operation with a piece of sterile gauze—more thoroughly between the fingers, into all the interstices about the nails, knuckles and palm.

Constant and frequent use may lead to overabundant desquamation unless the hands are coated with sterile vaseline just after its application; then the hands remain soft, pliable and comfortable, more so than with any other disinfectant. It facilitates pulling on rubber gloves.

Frequent culture tests show that hand disinfection by this method is fully equal if not superior to other methods.

Packard treats vaginal and rectal operations the same way; from this and absence of urethral irritation when it is used to lubricate catheters one may be encouraged in trying it in the nose, ear and eye. It is rare that patients complain of the camphor odor, but often they speak with appreciation of the "clean smell."

At the close of operation in clean wounds phenol-camphor is sopped along the line of incision, stitch holes and drains. Pouring it into or sopping clean wounds does not interfere with healing.

Suppurative cases are wiped out as dry as possible with gauze then all the tissues flooded or sopped with phenol-camphor; thereafter supuration has been trifling and repair rapid—no toxic effect has ever been observed.—Horace Packard, *Oct. Med. Cent.*, and *Chironian*, Nov., 1912.

The Paths of Rheumatic Infection in Children and Their Protection. Mackenzie in the *British Medical Journal* of June 1, 1912, discusses this important theme under several heads.

The importance of protection from local and general infection cannot be exaggerated, and the time has come when the mind of the profession, and more particularly the general practitioner, must turn to the possibility not only of treating rheumatic phenomena in children early, but of preventing their occurrence.

Hypertrophied adenoid tissue in the throat and nasopharynx should be removed in the quiescent stage, and simple congestion of the pharynx, palate and fauces in a child with a rheumatic family or previous history or with a rheumatic facies, should always be looked upon seriously. He meets it with local applications of salicylic acid preparations, together with sodium bicarbonate, sodium salicylate, potassium chlorate and aperients. A 5 to 10 per cent, sodium salicylate applied to the tonsils, palate and pharynx gives a protective film from further contamination, and does not impair the defensive action of the tissues; or a gargle containing 20 to 40 grains to the ounce is equally efficacious. Care should be taken that decayed teeth are stopped or extracted, and the tooth brush and antiseptic powder should be insisted upon daily.

Inhalation for half an hour, three times a day, of 10 minims of a solution of equal parts of creosote and carbolic acid with a Burney Yeo inhaler is, Mackenzie believes, the best method of protecting the pulmonary mucous membrane.

His experience is that sodium salicylate combined with sodium bicarbonate and rhubarb powder is by far the best protective treatment in cases in which there is any indication of excess of mucus in the intestine, the alkali acting as a solvent, the rhubarb clearing the offending material away, and the salicylate acting as a sedative and healing agent to the mucous membrane.

His conclusions are as follows:

1. The micrococcus rheumaticus takes the path of least resistance.
2. This may be an unhealthy throat, absorption from which frequently gives rise to general rheumatic infection, including peritonitis and appendicitis, directly through the vascular system.
3. Or it may be localized in the bronchial tubes and give rise to pneumonia, with polyarthritis and endocarditis.
4. An unhealthy condition of the intestinal wall may excite to activity the rheumatic agent, setting up acute rheumatic phenomena with peritonitis or appendicitis as part of a general infection.
5. A mild catarrh is produced at the seat of inoculation, and one or more of three factors in each case are present and promote the inroads of the micrococcus. Either (*a*) the physical resistance, or (*b*) the protective properties of the local tissue, or (*c*) defensive agencies of the blood, are below par.
6. The distinction between acute and subacute or latent rheumatism is mainly due to general infection with the actual rheumatic agent in the former and with the toxins only in the latter.—*Brit. Med. Jour.*, June 1, 1912.

Prophylactic Treatment of the Accidents That Follow Cocain Injections. Gruet (*La Tribune Médicale*, June, 1911) recalls that moderate doses of cocain produce vasoconstrictor action, as seen by pallor of the face, coldness of the extremities and elevation of blood pressure. The acceleration of the heart and elevation of arterial tension are preceded by slowing of the heart. We do not know of any specific antidote for counteracting the effect of cocain after its injection, but we can prevent these effects by combination of caffeine and opium, which has a definite preventive action. Gübler, Sydenham, and Bouchardat insist upon the exciting action of small doses of opium; opium and caffeine are among the ingredients of the "potion de Boileau" for headaches. This contains one centigramme of morphine in 100 grammes of the infusion of coffee. This mixture produces, according to Bouchardat, "gaiety, even a sense of inebrity, but no heaviness of the head."

This "potion de Boileau" acts very well in most cases of headache with pallor of the face, but some patients can't stand it. The author prefers a solution of $2\frac{1}{2}$ centigrammes of extract of opium in an infusion of coffee as preventive to cocain accidents. It produces a constant vasodilation without any of the accompanying phenomena, in other words, an absolutely opposite action to cocain. This mixture seems to act better than the morphine mixture as a prophylactic, especially if used a half hour before the hypodermic injection. The patient's face is highly colored and the eyes brilliant. Under the influence of cocain, where vasodilation plays a prominent part, and at the end of the operation, the face has its normal color; the pulse is not affected, there is no danger of syncope, even if the patient has to get up forthwith and walk.

This procedure gives absolute safety when doses of cocain up to five to six centigrammes are used.

We prefer to use a fresh 1 to 200 solution of cocain hydrochlorate, which gives a very satisfactory anesthesia. Ten to twelve cubic centimeters of this solution represents five to six centigrammes of cocain, which is all that is necessary to produce perfect anesthesia during a prolonged operation.—*La Trib. Med.*, April, '12.

CURRENT LITERATURE.

WM. McLEAN, M. D.,
New York.

FRANK O. NAGLE, M. D.,
Philadelphia.

J. OF OPHTHALMOLOGY AND OTOLARYNGOLOGY. Nov. 1912.

*1. A case of severe burn of the eye from the contents of a fluid core golf ball. Willis O. Nance.

*2. The lingual tonsils in health and disease. John H. Johnson.

*1. **The fluid core golf ball** contains a so-called acid. Dr. Nance reports a severe burn of the eye caused by the spurting "acid" when the cover of the ball was being removed; he calls attention to this danger. Casey Wood (Oct. *Oph. Rec.*) reports another case and mentions at least two others. [The fluid is caustic soda under about 500 lbs. pressure. A chemistry professor suffered this accident last October in New York.—MOFFAT.]

*2. The lingual tonsil corresponds to the solitary lymph glands of the small intestine, vermiform appendix and the large intestines. Embryologically the two portions of the tongue have different origins, the sulcus terminalis being taken as the division between the oroglossus and the pharyngoglossus; that part behind the pharyngoglossus contains the lingual tonsils. At the base of the tongue in the lingual tonsillar region the veins are very superficial. The lingual tonsil is at times the seat of an irregular fanlike varix; it is subject to acute catarrhal lacunar and phlegmonous inflammation, hypertrophy, sycosis, tuberculosis, leprosy and syphilis; also of tumour; fibroma, papilloma, lipoma, angioma and cysts. More rarely to a primary malignant new growth than are the faucial tonsils. Fetterolf reported an accessory thyroid on the back of the tongue just anterior to the epiglottis.

In all cases of hæmorrhage from the mouth a careful examination of the lingual tonsil should be made. Hæmorrhage is rarely profuse; it may simulate hæmoptysis or hæmatemesis. It rarely produces anemia. The blood may be swallowed, the tissue may be normal or even atrophied. There may be a reflex irritation or discomfort at the clavicle or between the scapulæ. Globus hystericus is frequently dependent upon some lesion of this tonsil. Cough is the most common symptom. Not all lingual tonsils should be removed because they are enlarged

at the time of examination, particularly not if there are any acute symptoms. Complete removal is a serious, exacting operation which demands as much skill as any major procedure to secure proper results: the compensation should be accordingly remunerative. The varix operation should be at several sittings.

Abstracting does not do justice to this thorough paper.

Dec 1912.

*1. General anesthesia in cataract work. Vard C. Hulen.

2. Differential diagnosis between brain abscess and sinus thrombosis; the treatment of these conditions. Edward Bradford Dench.

*1. Dr. Hulen has not been able to prove that general anesthesia is followed more frequently by open section, prolapsed vitreous, incarcerated iris and intraocular hæmorrhage than are the local anesthetics. As former statistics were based on ether or chloroform he suggests that nitrous oxide gas with oxygen, or some other anesthetic (chloroform following nitrous oxide is used at the Royal London Ophthalmic Hospital) may be found practically free from nausea and vomiting. In that event the disadvantage of general anesthesia would be that there is no coöperation by the patient. [Intravenous injection of ether, it is claimed, is not followed by nausea or vomiting; but we fear that this would prove injurious to the blood. As a matter of fact, mixed chloroform and ether are rarely followed by nausea and vomiting if skillfully given by an experienced administrator in properly selected cases. —MOFFAT.]

THE OPHTHALMIC RECORD. Nov. 1912.

1. Case of juvenile form of family amaurotic idiocy. N. Gifford.
2. A modification of the Prince advancement forceps. Frank Allport.

THE AMERICAN JOURNAL OF OPHTHALMOLOGY. Nov. 1912.

1. Morgagnian cataract in an eye with secondary glaucoma. A. Alt.
3. Calcium salts in the internal treatment of glaucoma. D. L. Weckers, Trans., by A. Alt.

OPHTHALMIC REVIEW. Dec. 1912.

Anisometropia. W. H. McMullen.

THE OPHTHALMOSCOPE. Dec. 1912.

1. Miners' nystagmus. T. H. Butler.
2. Miners' nystagmus—a retrospect. J. Court.
3. Color and light in relation to miners' nystagmus. H. S. Elsworthy.
4. On Miners' nystagmus (neurosis). T. L. Llewellyn.
5. Coal miners' nystagmus. B. Cridland.
6. Gonorrheal iridocyclitis with observations on its relation to so-called traumatic iritis. A. S. Cobbledick.

ANNALES DES MALADIES DE L'OREILLE, DU LARYNX, DU NEZ ET DU PHARYNX. Oct. 1912.

1. Sur un cas de cancer secondaire du larynx. Lannois et Monchadmont.

*2. Des analgesiques locaux et de leur emploi en chirurgie otorhinolaryngologique. Le Mee. Suite de Septembre.

*2. A *very thorough* study of cocain, stovaine (a pun upon the name, Fournéau, of its discoverer), alypin, eucain (both A and B), tropacocain, novocain, the double chloride of quinine and urea, anesthesin, subcutin (or subcutol), orthoform, chloretone, guaiacol, gaiacyl, acoin, holocain, and briefly half a dozen more, with adrenalin. There is no analgesic panacea; each of the principal analgesics has its indications and its tissue preference—the choice is as important as the operative method.

THE OPHTHALMIC RECORD. Dec 1912.

- *1. A study in dextrophoria. Francis Valk.
- *2. Report of a case of steel passing through eyeball into the orbit. E. E. Krider.
- *3. The technique of advancement. Prof. A. Elschmig.
4. Trachoma and its surgical treatment. L. W. Fox.
- *5. A pupillary disk for the correction of spheric aberration. A. B. Mason.
6. A case of macular hole due to traumatism. E. M. Blake.
- *7. A case of retrobulbar neuritis of toxemic origin. Frank Allport.
8. Migratory ophthalmia followed by recovery of useful vision. W. A. Fisher.
- *1. Dr. Valk in the presentation of this paper takes up the question,

What is dextrophoria, and asserts that a turning of both eyes to the right and the very much less frequent sinestrophoria, or turning both eyes to the left may occur in a certain number of cases just as the accepted conditions of kataphoria and anaphoria. He has found that dextrophoria and sinestrophoria may exist even in the so-called orthophoric condition as determined by the Maddox rod. The only method by which a dextrophoria or sinestrophoria can be accurately determined is by a careful study of the version powers of the eyes by an instrument which records the excursions of the eyes to the right and left. Oculists have failed many times in their efforts to correct muscle imbalance simply because the effort expended was not in consideration of an existing dextro- or sinestrophoria. Dr. Valk considers the tropometer the only instrument which will accurately measure the excursions of the eye in their principle directions.

*2. The patient while at work was struck in the eye by a piece of flying steel which came from the head of a punch that was being used by a fellow workman. A wound 2 mm. in length could be seen about 4 mm. from the temporal corneal margin. Marked sinus tension, floating vitreous opacities and a large retinal hæmorrhage were present. Vision 20/70. X-ray pictures indicated the foreign body to be within the globe. The giant magnet was used which produced only a "dragging" sensation even after an incision 1 cm. long was made in the globe. Enucleation was done and the steel was found in the orbit about 6 mm. from and to the nasal side of the nerve instead of within the globe as the x-ray findings indicated.

*3. Prof. Elschnig offers an addition to the technique of advancement by inserting two retention or guy sutures, one placed at the upper part of the advanced muscle behind the attachment suture, while the lower is passed through the lower part of the muscle, about the same distance behind the attachment suture as the upper. The upper suture passes through the superficial scleral lamellæ and into the fan shaped insertion of the superior rectus, while the lower is passed in a like manner into the inferior rectus. Elschnig claims for this method an absence of the tucking and bulging of the muscle at its insertion, and that the adhesion of the muscle to the bulb is restricted to its tendonous end only.

*5. Dr. Mason has devised an opaque disc which fits the trial frame. The disc has a mechanical arrangement whereby the opening, which is central, can be adjusted to the size of the normal pupil of the eye

examined. The inventor claims better results in refraction where the disc is employed to cut out the troublesome spheric aberration rays produced by the periphery of the lens, when the eye is in the state of mydriasis accompanying the cycloplegia.

*7. Dr. Allport reports a case of retrobulbar neuritis developing in the right eye of a patient who on previous tests had had normal vision. During the attack the vision was reduced to 20/200 and a central scotoma was present; otherwise the eye appeared normal. A diagnosis of intestinal toxemia with catarrhal jaundice was made. Appropriate treatment improved the toxemia and the vision returned to normal. The scotoma disappeared.

J. OF LARYNGOLOGY, RHINOLOGY AND OTOTOLOGY. Dec. 1912.

1. True serous leptomeningitis cured by operation, with considerations on this interesting otitic complication. Prof. S. Citelli.

2. The aftertreatment of nose, throat and ear operations. P. G. Goldsmith.

*3. Accidental exposure of the meninges during intranasal operations. J. B. Horgan.

*3. Exposure of the meninges, whether accidental or otherwise, by the intranasal route may under certain circumstances and when done with regard to the main surgical principles be not fraught with any graver risk of setting up some intracranial mischief than the same procedure involves when carried out, as it so frequently has to be, in aural surgery.

A girl, aged 17, consulted the writer for obstruction of the left nostril of two years' duration, accompanied by increased anterior nasal discharge on that side and frequent colds in the head. Had had polypi removed on three previous occasions. Examination showed multiple small polypi in the left middle meatus, also total infraorbital dulness of the left side of the face. The polypi and the anterior third of the inferior turbinated body were removed and an opening was made into the left antrum. The ethmoidal cells were opened and that region was found to be necrotic. Eighteen days later the ethmoidal region was again attacked and more polypi and necrotic tissue removed. In six weeks the antral trouble had cleared but some pus could be removed from high up in the anterior ethmoidal region. Attempt was made to remove more necrotic tissue and during the procedure sudden pain was complained of in the frontal region. On examination pulsating dura

could be seen through a small oblique opening 4 mm. in extent. The opening was enlarged and the edges smoothed. Pain continued for some hours. No packing was used and the patient was very restless the first night but no temperature followed and the patient had an uneventful recovery.

CAS 2.—Lady, aged 26, complained of intractable frontal headache of some years' duration. There was present a deflection of the septum to the right hypertrophy of the posterior ends of the inferior turbinates and bulbous enlargement of the anterior ends of the middle turbinates which lay in close apposition to the septum. Under cocain anesthesia both posterior ends were snared off and the anterior ends of both middle turbinates removed, a submucous resection of the septum was done. While working on the upper part of the perpendicular plate of the ethmoid quite a large piece of bone was removed which showed two lateral expansions which were parts of the cribriform plate. The dura was exposed for an area of $\frac{1}{2}$ inch. Pulsation was not visible and the patient did not complain of any excessive pain. An uneventful recovery ensued.

THE LARYNGOSCOPE, Nov. 1912

1. The relief of nasal obstruction by orthodontia. A plea for early recognition and correction of faulty maxillary development. W. H. Haskin.

2. The development of the teeth and occlusion as factors in the development of facial bones. F. B. Noyes.

3. Treatment by the orthodontist supplementing that by the rhinologist. A. H. Ketchum.

4. X-ray measurement of the permanent teeth before eruption to provide for early regulation of the dental arch. Sinclair Tousey.

5. Improved tonsil tenacula constructed on the principle of a double tined corkscrew. J. D. Lewis.

Bufogin is a new remedy "discovered" by a professor in Johns Hopkins University, and it seems to have some value as a "heart stimulant." This is none other than the *Bufo Rana* of the homœopaths that has, in certain conditions, been used for many years. The poison from the frog is a well recognized heart stimulant and is also a most excellent remedy in the treatment of epilepsy. Indeed, no less an authority than J. H. Clark, an English homœopathist, remarks in the *Diction-ary of Materia Medica*, "No medicine has served me better in the treatment of this disease." Thus "the world do move."—*Clinical Reporter*, Dec., 1911.

SOCIETIES.

THE SOUTHERN HOMŒOPATHIC MEDICAL ASSOCIATION

At their meeting held in Richmond, Va., Oct, 15, 16, 17, 1912, elected the following officers for the ensuing year:

Dr. Wellford B. Lorraine, Richmond, Va., President.

Dr. H. E. Koons, Danville, Va., 1st Vice President.

Dr. J. Burnie Griffin, St. Augustine, Fla., 2d Vice President.

Dr. Myron A. Newman, Norfolk, Va., Treasurer.

Dr. Lee Norman, Louisville, Ky., Secretary.

Application blanks and all other information regarding the Association may be obtained from the Secretary,

LEE NORMAN,

712 W. Broadway,
Louisville, Ky.

The olfactory nerves are distributed so as to cover the roof, the upper third of the septum, the superior turbinated body to its free edge and the anterior superior half of the middle turbinal, terminating for the most part in the region of the olfactory cleft.

The olfactory hairs when once destroyed are never reproduced.—*J. J. Kyle.*

Some Inherited Eye Affections. Pathological hereditary transmissions are particularly marked in the case of certain eye affections. The instructive experiments of Brown-Séquard, Dupuy and Deutschman, performed on guinea pigs and rabbits, show conclusively that eye diseases are capable of being transmitted from parents to offspring. These investigators inflicted artificial injuries on the eyes of animals, and were able to demonstrate that they were reproduced in the eyes of their offspring, and that the disease transmitted in this way promptly reappeared for five generations in the same animals.

In a school examination, made several years ago, he found proportionately more errors of refraction transmitted through heredity among the darkeyed scholars than among those with blue or gray eyes.—*Lan. Cl.*, June, '12.

Angiosclerotic Otagia. Sclerotic changes in the vessels supplying the ear may, in Stein's opinion, be the cause of disagreeable or painful sensations in this organ. These are of course merely added to the other morbid phenomena likely to be present. The diagnosis of angiosclerotic otalgia should only be made where all other factors capable of causing pain in the ear have been eliminated. Theobromine or diuretin are of assistance both in the diagnosis and the treatment, owing to their vasodilator property. The dose used should be $7\frac{1}{2}$ grains (0.5 g.) 3 to 5 times a day.—*Wiener klin. Wochenschrift*, June 27, 1912.

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No. 3

EDITORIAL.

ENFORCE THE PURE FOOD LAW.

WE are all familiar with the label "Guaranteed under the Food and Drugs Act, June 30, 1906, No." so and so, and doubtless have known of instances where this has been interpreted as an indorsement, indeed a guaranty, by the government of the particular drug or food.

Such labels violate the law, either carelessly or deliberately. In section 8 that act provides "that the term 'misbranded' . . . shall apply to . . . the package . . . the label of which shall bear any statement . . . which shall be . . . misleading in any particular." . . .

In compliance with Sec. 3 of that same act the Secretary's Circular 21, 2d revision, says: "Reg. 9. A general guaranty may be filed with the Secretary of Agriculture by the manufacturer or dealer and be given a serial number which number shall appear upon each and every package of goods sold under such guaranty with the words 'Guaranteed by (insert name of guarantor) under the Food and Drugs Act, June 30, 1906.'"

It would seem that the simplest way to remedy this—abuse?—would be for the Secretary of Agriculture to amend regulation 9 by substituting the word *Registered* for "Guaranteed," and we suggest a concerted action on the part of the profession and laity urging the Secretary so to do.

We ask our brother editors to take up this matter and feel that if they do so the change will undoubtedly be made, provided violations are also reported to the Secretary or to the Board of Food and Drug Inspection, Washington, D. C.

As the first step every reader of this editorial is requested to write

at once to the Secretary calling his attention to violations and asking that the word "Registered" be substituted for "Guaranteed" in such labels.

In this connection the following letter will doubtless be of interest :

Department of Agriculture, Washington,

Office of the Secretary, Jan. 18, 1913.

DR. JOHN L. MOFFAT,

119 Stewart Ave., Ithaca, N. Y.

Dear Sir,

I beg to thank you for your letter of the 16th inst. calling attention to the misleading character of the guaranty legend which regulation 9 requires shall accompany serial numbers assigned to manufacturers who have filed guaranties at this Department. The officials of the Department are doing everything possible by means of correspondence, orally and by citation for hearing, to advise owners of serial numbers that their names should be incorporated in the guaranty legend in conformity with the requirements of Food Inspection Decision 99.

I note your suggestion that regulation 9 be amended by substituting the word "Registered" for the word "Guaranteed," and have referred your letter to the Board of Food and Drug Inspection with request that it be given consideration with other correspondence relative to the same subject.

Respectfully,

(Signed) JAMES WILSON,
Secretary.

CORRECTION—FRALICK'S SERUM.

THE February editorial upon Fralick's Artificial Serum should have said that this serum "is an ionized solution of *the salts of the alkaline metals of the blood.*"

Also that it induces a maximum body resistance (line 14, page 54) ; furthermore: our desire is to protect Dr. Fralick's priority (p. 54, l. 31) in a scientific attempt to disinfect the blood and organisms and thus induce immunization by an artificial (chemical) serum introduced intravenously, in New York hospitals in August, 1901.

It was inaccurate to state that Dr. Fralick "has not taken the trouble to write it up;" he has done so, to a voluminous extent but has not

published any of his abundant original manuscripts covering his investigations and clinical verifications. He is now conducting experiments, which he began nine years ago, in an effort to explain a circulation throughout the organism apart from and independent of the vascular system—a circulation of liquids within a solution passing through membranes similar to those in a living organism but independent of any external force, somewhat analogous to the circulation spoken of by experimenters within the last six months at the Rockefeller Institute.

THE MANAGEMENT OF ACUTE HÆMORRHAGIC GLAUCOMA WITH ADVANCED ARTERIOSCLEROSIS.

F. G. RITCHIE, M. D., O. ET A. CHIR.,

Professor of Ophthalmology, New York Ophthalmic Hospital.

IN order that one may intelligently undertake the treatment of the subject of this paper, a comprehensive knowledge of the pathology of the disease is essential, not merely that pertaining to the eye, which is but the local expression of the general cardiovascular disease, but we must also be conversant with the changes wrought by the disease in other organs and tissues of the body, and their effects upon the normal functions of the human organism—in other words, we must have a clear conception of the disease as a whole.

It is generally accepted by recent authorities, with the exception of the German school and their following, that arteriosclerosis or, better, angiosclerosis (for the whole circulatory system is involved) is due to the action of toxins, the product of intestinal putrefaction due to faulty metabolism, upon the tissues of the circulatory and nervous systems. In its latest manifestations it is synonymous with chronic interstitial nephritis. The prognosis in these cases is therefore bad, as far as life is concerned, for in the course of the disease the patient eventually succumbs to cerebral apoplexy or, should he escape this, he falls a victim to the kidney lesion.

The character of the paper and the time allotted to the subject will not permit my treating of the etiology and pathology of the general cardiovascular disease, nor can I dwell upon the theories as to the manner in which the glaucomatous attack is precipitated, interesting and vitally instructive as they may be, but must refer you to the other papers of this symposium, and to the literature on the subject embodied in recent standard works and special articles in current medical publications.

It is necessary to differentiate between hæmorrhagic glaucoma, which is fortunately of rare occurrence (1 in 5,000 according to statistics) and is usually met between the ages of fifty and seventy years, and hæmorrhages occurring in an eye which is already the seat of a glaucomatous process, although they are both dependent upon the same cause, namely, angiosclerosis.

Green avers that in acute glaucoma the blood pressure is always increased, in support of which statement he offers a carefully kept record of 700 cases occurring in patients over sixty years of age, inmates of the National Military Home, in which he found the blood pressure to exceed 160 mm., the standard which he has established for that age. Black, however, claims that hæmorrhagic glaucoma frequently occurs in the presence of a subnormal arterial tension. In these cases, I am of the opinion that the condition was that of a "secondary low blood pressure," first pointed out by Bishop as sometimes following a high blood pressure which had existed for a considerable length of time—in other words, occurring in old high pressure cases.

Arterial hypertension is declared by Huchard, Bishop and others to be an effect and not a cause of angiosclerosis. It is, to a certain degree, compensatory to the narrowing of the lumen of the capillary blood vessels and a failing heart muscle. Snow claims that it is compensatory only in cases of parenchymatous nephritis, cirrhosis of the liver and lesions of the cardiovascular system which impede the normal flow of the blood current, aside from the hypertension.

The management of these cases may be divided into: 1. General or constitutional treatment; 2. Treatment of the ocular manifestations.

I. GENERAL OR CONSTITUTIONAL TREATMENT.

Hygiene. Mental relaxation with freedom from work and worry is essential to the attainment of the best results; for the mental stress and irregular habits resulting from the modern strenuous life is a potent factor in the production and persistence of autotoxemia. A warm climate is desirable. Change of environment and moderate physical exercise in the open air (be it in the form of some light work or recreation) adapted to the condition of the individual should be insisted on, care being exercised to avoid the direct rays of the sun in hot weather. The clothing should be adequate but not excessive or burdensome; in hot weather it should be light and comfortable. The sleeping room should be so arranged as to provide for the maintenance of an abundance of fresh air.

Constipation must be avoided and the hepatic functions regulated by the stimulation of a torpid liver so that the natural antitoxic action of the bile may assert itself. A daily stool does not necessarily mean an emptied bowel. A word here in reference to the habit of constipation may not be amiss. In order to correct this habit it is necessary that

the patient have a regular time to go to stool, even though there is no inclination. This regularity must be cultivated; it is not sufficient that there be a general set time, there must be absolute regularity. If the time fixed upon is eight o'clock it must not be postponed until quarter after the hour.

The urine should be examined frequently to note the effect of the therapeutic measures employed upon the intestinal toxemia; the amount of indican present being the index of the various toxins of the putrefactive group, namely, indican, indol, skatol and phenol.

Hydrotherapy. Tepid baths (95° to 100° F.) with the addition of bicarbonate of soda are indicated both in the high pressure cases, and also in the "secondary low pressure" cases. These act by improving the peripheral circulation, and also elimination through the skin, and when given at night tend to promote slumber. The duration of the bath is to be determined by the reaction which follows.

Dietetics. Proper regulation of the diet is of vital importance, taking precedence over all other measures in combatting the general disease. The average person eats too much, consumes too great a quantity of meat, does not properly masticate his food and ingests too great a quantity of fluid with his meals.

The protein elements of the food must be reduced to the lowest point consistent with the maintenance of bodily strength and the standard of weight. By the latter we are to understand the normal weight for a person of given height. In order to maintain bodily weight and strength the adult will require approximately fourteen calories to each pound of body weight daily, of which amount roughly speaking one-fortieth is to be supplied by the protein elements the balance by the carbohydrates and fats.

It is comparatively easy to arrange a dietary if we will bear in mind that the value,* in calories per gramme, of protein is 4.1; carbohydrates, 4.1; fats, 9.3. To arrive at the composition of the various foods, Secretary of Agriculture's Bulletin 28 on "The Chemical Composition of American Food Materials," printed by the Government Printing Office at Washington, D. C., will give all the necessary data. A cubic inch of

*The latest figures, based on food actually utilized (Farmer's Bulletin, No. 142, Government Printing Office, Washington, D. C.), are: Protein, 4. calories per gramme, 1820 calories per pound; Carbohydrates, the same; Fats 9. calories per gramme, 4040 calories per pound. The figures in the text are per gramme.—
EDITOR.

beef or fish, an egg, a glass of milk, each contain eight grammes of protein; potatoes, beans, hominy, rice, corn, peas and onions each contain about two grammes to the heaping tablespoonful; a large slice of bread contains about two grammes. Fresh fruits and green vegetables (with the exception of the tubers, legumes and the liliaceæ) are practically protein-free, as is heavy cream, butter and oil, while the three last mentioned have a high caloric value, as has also sugar of milk; the latter therefore is of utility in the composition of a meal which would otherwise be deficient in caloric value.

It would be impossible in a short paragraph to give the heat values of the foods enumerated, as they vary for the different foods mentioned, but I would refer you to the publication just mentioned for such information.

It is essential that the food should be thoroughly cooked and proper mastication be practiced before it is swallowed, and this must be accomplished without the aid of fluids.

Abstinence from the use of red meats is to be enjoined, but the white meat of chicken, oysters, clams and most of the fresh fish being the least irritating of the nitrogenous foods, may be used in moderation to vary the dietary. There are some cases of gastric hyperacidity in which there is an intolerance of the carbohydrates; in these cases we shall be obliged to have recourse to the least objectionable of the protein foods, but in amounts sufficient to yield the requisite nourishment only.

Gluten, and entire-wheat bread, such cereals as corn, rice, oats and wheat, taken with a liberal supply of cream, are among the least harmful and most nutritious. Uncooked prunes should enter into the dietary.

Fats are to be restricted in cases of obesity, and in splanchnic angiosclerosis, or when the liver and pancreas are the seat of marked pathologic changes. Alcohol, coffee, tea, cocoa, condiments and tobacco are harmful and should be interdicted.

Fluids are to be taken only in quantities sufficient to allay thirst, as the taking of large quantities increases the work of the heart, augments the volume of blood and still further raises the blood pressure by irritation of the splanchnic nerves.

Electrotherapy. In the d'Arsonval current, preferably through the medium of the static machine administered by autocondensation (the chair being used in preference to the couch, for obvious reasons), we

possess a therapeutic measure of great value for the improvement of general metabolism, increasing the elimination of solids and carbon dioxide and exerting a beneficial influence upon the whole cardiovascular system. It reduces the blood pressure by improving the tone of the heart muscle as well as that of the musculature of the arteries, thus relieving their hypertonicity.

It should be administered daily or every other day for a period of from ten to fifteen minutes. It causes a reduction of blood pressure which is, as a rule, gradually accomplished at each successive treatment, in all cases except those in which there is a marked hardening of the walls of the blood vessels. Even in these cases great benefit is to be derived from its use, in connection with the proper hygienic and dietetic measures, by the improvement of the general nutrition, so that the patient frequently escapes apoplexy and renal disease for years, despite the persistence of high arterial tension.

Its use has been questioned in those cases in which the kidneys are involved, as the increased tension being compensatory harm would result from its reduction; but the increase is, as a rule, in excess of that demanded by the diseased kidneys, and its reduction to a point which will still be sufficient for proper elimination will be low enough to render the danger of hæmorrhage remote.

Potential alteration, in this affection, is used in the following manner: The patient being seated in the autocondensation chair placed upon the insulated platform, the positive pole of the static machine is connected with the metal plate of the chair while the negative pole is grounded by means of the gas pipe or some other suitable metallic conductor; the sliding rods are widely separated; the ball and standard are connected by another metallic line, the water pipe, for instance, which enters the earth at a distance from the first mentioned ground line; the machine being started, the speed is regulated so that a spark-gap of from two to three inches between the positive prime conductor and the ball on the standard is obtained, with a rate of discharge which will produce a distinct though rapid vibratory motion to the hair of the patient. This treatment is given at the same intervals and for the same length of time as the preceding and is, I believe as efficient, if not more so, than d'Arsonvalization and covers practically the same therapeutic range.

Phototherapy. Fox gives electric light sweats of one hour duration daily for seven days. In a case of cataract extraction with blood

pressure of 220 mm. by means alluded to, together with the instillation of eserine in the eye, the arterial pressure fell to 150 mm. and the tension of the eye to normal.

Medicinal. The homœopathic remedy must be chosen from the totality of the symptoms; in this disease particularly, is this true. The eye may afford some clue as to the proper remedy, but generally speaking the only symptoms referable to the eye are pathognomonic and therefore are of little value in the selection of the remedy; occasionally we meet with an eye symptom which is peculiar to the patient.

The most I can hope to do is to refer by name to some of those remedies whose pathogenesis would indicate their employment in this affection, namely: Acon., Anac., Ammon. benz., Ammon. caust., Apis, Arn., Arsen., Aur. mur., Baryta carb., Baryta mur., Bell., Cact., Crota-lus, Duboisia, Euonyminum, Euonymus, Eupat. purp., Helonias, Kalmia, Lach., Merc. corr., Naja, Oleander, Osmium, Phos., Plumb. met., Plumb. iod., Polygonum., Puls., Tabac., Taxus and Verat. vir.

Of the remedies most frequently described, it is my observation that the general opinion of the nitrites is that they are of little or no use. Nitroglycerine should be used only symptomatically to relieve spasmodic conditions, its prolonged or continuous use giving rise to a loss of tone of the cardiac muscle and bringing on "secondary low pressure," a grave condition. Digitalis, when a reliable preparation can be obtained, is considered by Bishop to be a specific in fibrillation of the auricle, restoring the tone of the heart, but is to be discontinued as soon as the crisis has passed, and not continued with the object of restoring the rhythm.

The iodide of soda is advocated for patients with high arterial tension and progressive deterioration of the cardiac muscle. It is best administered in doses of from two to fifteen drops of a solution of equal parts of water and the salt, in a half a glass of water, after meals. It is a matter of experimentation to determine the dose which a given patient will tolerate. It must be persistently used.

Waugh says of the alkaloid veratrin: "By its use the arterial tension may be modified at will, and maintained at the normal point for months or years without a trace of harm, immediate or remote. It is not a mere symptom remedy, for while controlling the vascular tension it is stimulating all the eliminants to evacuate the toxins that are working the evil. * * * The average adult dose is 0.5 of a milligramme, given in at least two ounces of water and repeated every one

to four hours until the desired effect has been secured, the dose thus ascertained may be divided into three portions and taken in the usual way, after meals. * * * It provides its own elimination, so that remote ills or cumulative perils are impossible."

There is one other drug which has arrested my attention, and that is guipsine, consisting of the active principles of the mistletoe (*viscum album*) ; it has been used by Huchard and others to reduce the hypertension in cases of arteriosclerosis, increase the tone of the heart muscle, and in cases of chronic nephritis to decrease the quantity of albumin in cases where milk diet had failed. It is administered in doses of five centigrammes every one or two hours.

Tablets of the Bulgarian lactic acid bacillus should be of marked benefit in combatting the intestinal toxemia and are to be preferred to the culture in milk. They should be exhibited in doses of three tablets three times a day, after meals.

2. TREATMENT OF THE OCULAR MANIFESTATIONS.

Electrotherapy. The pathological findings in hæmorrhagic glaucoma indicate the employment of the negative galvanic current, using for contact a thick sponge electrode well moistened with a strong solution of bicarbonate of soda. The positive pole is preferably applied to the back of the neck by means of a large sponge electrode. The amount of current used is from five to ten milliamperes, the voltage being only sufficient to overcome the resistance of the tissues and deliver the amount of current specified. Treatments are of fifteen minutes' duration and are repeated daily or every other day.

The high frequency current applied to the eye for its local effect, exerting as it does an analgesic and antiseptic action, influencing favorably metabolism and reducing arterial pressure. The reports of its favorable action in various cases of other forms of glaucoma would lead us to make use of it in the class of cases under consideration.

Heat is useful in controlling the pain and in combatting the venous stasis; it even may be applied by means of hot fomentations or a kaolin poultice, the heat being maintained by the use of the Japanese hot-box or the electric heating pad.

Collyria. While we do not look for the material benefit from myotics in these cases that attends their employment in the other forms of glaucoma, yet we should be remiss in our duty to our patients if we failed to secure for them the benefit which might accrue and which has

attended their employment in a number of cases reported. It would seem that the formulæ containing adonidin in the strength of 1/4,000 and dionin 1/10 offer the most promising results.

Callan advocates, in acute and subacute glaucoma, a solution containing one grain of eserine sulphate, two grains of pilocarpine hydrochlorate, and twelve grains of dionin, to two drams of water; instillations of one drop are made hourly, at first, and as the tension of the eye is reduced the interval is increased until, when it is under control, it is used but three times a day. Should the pupil fail to contract and the tension remain unchanged after a fair trial, the myotic should be discontinued and the adonidin or dionin alone may be used for the control of pain.

Surgery. There seems to be honest differences of opinion among authorities as to the advisability of operative interference, some taking the position that it is contraindicated owing to the condition of the cardiovascular system which precludes the use of general anæsthesia, and also on account of the danger of intraocular hæmorrhage following the too rapid lowering of the tension of the eyeball. The first objection may be overcome by employing local anæsthesia by the infiltration method. This is best accomplished by freely injecting into the subconjunctival tissue equal parts of Waite's local anæsthetic (a preparation consisting of about 1 per cent solution of cocaine in combination with some of the essential oils) and supracapsulin 1/1,000. The head and shoulder should be well elevated. In nervous subjects, whose kidneys are not involved, it is well to administer an eighth of a grain of morphine combined with a one one-hundred and fiftieth of a grain of atropine, hypodermatically, a half an hour previous to the operation.

The second objection may be nullified by care being exercised to see that the eye is sufficiently anæsthetized, and that the technique of the operation is such that the tension is reduced very gradually. This is possible in performing any of the operations for the relief of increased tension.

As to the choice of the operation, here again there is a diversity of opinion. Oliver, Jackson and De Wecker advocate iridectomy; Komoto has obtained a good result by opticociliary neurectomy, after several other operations had failed to afford relief; we must bear in mind however that this operation will be followed by atrophy of the globe. Bull and Miles Standish prefer paracentesis, repeated as frequently as necessary until with adjuvant treatment the desired result is obtained.

Randolph is in favor of posterior sclerotomy, and cites a case in which, iridectomy having failed, he, using a Graefe cataract knife, made three punctures in the equatorial zone, one just above the external rectus, a second a little to the inner side of the superior rectus, and the third a little below the internal rectus; these were all made at the one sitting, and resulted in complete and permanent relief, the patient dying ten years later from chronic nephritis.

Extirpation of the ciliary ganglion has been practiced, but it is a formidable operation necessitating osteoplastic resection of the walls of the orbit, and the removal of the ganglion, which, owing to its location and minute size, is difficult and uncertain. If successful, the pain is relieved at once, but the tension is not always reduced. This latter is of no consequence, inasmuch as the operation would be performed only in a case of absolute glaucoma for the relief of persistent pain and where the patient elects it as an alternative to enucleation, for cosmetic or other reasons.

Trephining of the sclera, preferably by the method of Elliott, using the v. Hippel motor with an Elliott trephine, appeals to me as the operation offering the best chance of success, for by this combination we have perfect control and a delicacy of touch not to be obtained by any other means with which I am acquainted.

Enucleation is our last resort when other methods have failed to give relief from pain in a blind eye.

133 West 79th Street.

Ready Diagnosis of Syphilis. Make a smear upon a glass slide or cover glass of the secretion from the supposed chancre, but do not dry it or pass through flame. Promptly, before the smear dries, drop a little liquid India ink upon it and mix well together. Cover, making a fairly thin film, and examine under dark ground illumination.

The spirochæte is at least twice the length of a red blood corpuscle, is evenly coiled, and tapers at both ends. It is hard to find in late lesions, but is readily found in an initial chancre. This is the method of Günther and Wagner.

Formaldehyde solution is one of the most efficient applications in various insect bites. While it causes rather severe smarting, this is only temporary and the sting or pain of the bite rapidly subsides.

Absolute alcohol is not a disinfectant, it does not possess any disinfecting power whatever—until it is diluted with water. The best strength is an alcohol of 50 per cent. to 75 per cent.

THE SURGICAL TREATMENT OF GLAUCOMA WITH SPECIAL REFERENCE TO THE SUBSTITUTES FOR IRIDECTOMY.

I. O. DENMAN, M. D.,

Toledo, O.

FOR more than fifty years iridectomy has been the operative procedure for glaucoma. During that time many substitutes have been proposed but they have failed to supplant it in practice, and so almost universally has it held sway that an "operation for glaucoma meant iridectomy" with no questions asked.

This high position has been accorded this surgical measure on merit, and merit has maintained it. We give all honor to Von Graefe as its originator, and hail him as one of the world's benefactors. Iridectomy has preserved sight, alleviated pain and brought light out of darkness to tens of thousands of patients the world over; that it sometimes fails to relieve pain we know; that it sometimes does not preserve sight we know. It must be classed always as a major operation, and as such is to be excused if followed by such sequelæ as astigmatism and coloboma with their visual disturbances.

Just how iridectomy succeeds we do not know. It has been attributed to the part the stump of the iris plays in absorption. Others, noting that many successful iridectomies were those in which there remained an ectasia of the cicatrix, believe that relief of tension is secured by the widening of the filtration angle at that part of the circle; this led de Wecker to suggest his anterior sclerotomy.

From our knowledge of the pathology of glaucoma we summarized two paramount conclusions: first, increased tension; second, the imperative necessity for its relief. The operation which will accomplish this in the surest and safest manner, with the least resulting deformity and leaves the eye in the most nearly normal state, is the one which we as scientific men should choose.

There are many oculists in Europe and a few of us in this country who feel that in recent years some substitutes for iridectomy have been suggested whose value has been proven; even if we refuse to discard the old entirely for the new, which I am not ready to do, we

can at least feel that we now have alternatives to which we may turn with some degree of confidence. Most prominent among the newer surgical procedures for glaucoma are scleral trephining, sclerectomy and sclerecto-iridectomy and cyclodialysis; the Holth "buttonhole operation" also has some claim for merit.

Scleral trephining, devised by Elliott, of India, is perhaps the one most simple and the easiest to make. A triangular conjunctival flap is raised beginning with the apex about 5 mm. from the limbus and reflecting the conjunctiva back over the cornea, the limbus forming the base of the triangle.

The sclera thus exposed is drilled through near the limbus by a trephine which is constructed from a tube, whose diameter should be about 2 mm. The circle of scleral tissue thus removed is about 2 mm. in diameter. The conjunctiva is then carefully stitched back in place and the aqueous drains through the aperture under the conjunctiva.

La Grange, of Paris, has introduced the procedure called sclerectomy and sclerecto-iridectomy and it is finding favor at the hands of some renowned operators. The technique is more complicated. A triangular conjunctival flap is raised similar to the one described under scleral trephining only much larger, having a broader base. The eye is firmly fixed by forceps and an incision is made with the Graefe knife, the puncture entering the anterior chamber at the limbus high up, at say 1:30 or 2 o'clock on the clock face for the patient's left eye and the counter puncture about 10 or 10:30 o'clock. The cut is then made as for cataract extraction up to the point just before the middle of the blade engages the sclera. At this moment the edge of the knife is turned sharply downward, that is, toward the fundus and then upward, the edge being brought through the sclera, and the cut finished about 1 to 2 mm. above the limbus. The next instrument is a small pair of scissors whose blades are sharply curved. With these a semilunar piece of sclera is snipped from both the anterior and posterior lips of the scleral incision. This completes the operation of sclerectomy. If an iridectomy is desired it is performed at this stage. Two forms of iridectomy are done, according to the preference of the operator—a pupillary or a peripheral iridectomy; for the former the pupillary margin of the iris is seized with forceps, the iris drawn out and excised, and for the latter the body of the iris near the periphery is lifted up through the incision leaving a buttonhole in the iris. Of course the last step in any case is the replacement and suturing of the conjunctiva.

Four years ago at the annual meeting of this society in Kansas City, I described the technique of cyclodialysis and reported a few cases. At this time I wish to state that since that time my experience with this operation has been most satisfactory, and as I use it more and more in all classes of cases I am coming to esteem it and to rely upon it greatly. I have even used it successfully in acute inflammatory glaucoma though many operators who have confidence in its efficiency in other glaucomatous conditions are loathe to give it preference in the inflammatory type. The technique you are familiar with, yet I trust you will pardon me if I say that it is my belief that in most instances where favorable results do not follow the performance of cyclodialysis the failure is due to faulty technique. The operation is not difficult, yet as in most all ocular surgery the small details count for much in the final results. Failure to secure reduction of tension may come from so small an error as faulty placing of the incision—not avoiding a large scleral vessel; in such a case hæmorrhage will obscure the view of the field during the entire performance of the operation, resulting maybe in the injuring of the ciliary body and from it a hæmorrhage which will leave a blood clot in the rent in the pectinate ligament made by the spatula thus sealing up the drainage point. The spatula must be well selected and not too wide; the insertion of the spatula may prove to be the reason for failure. Its point must be pressed gently but firmly forward against the sclera or it may perforate the root of the iris and appear in the anterior chamber but when withdrawn will not leave a drain as the puncture of the iris is quickly healed. A third error maybe made by applying too great pressure forward, whereby the point of the spatula enters the corneal stroma, and instead of entering the anterior chamber it is in reality separating the deeper corneal layers, in which case the anterior chamber not having been entered there could be no tension reduction follow.

Some of the reasons why I like cyclodialysis are that it is not a difficult operation to perform; it is usually done under local anæsthesia; it leaves no scar or deformity—the eye does not show any evidence whatever of ever having been operated upon after a few weeks' time have lapsed; no visual disturbances; a round normal pupil which is still susceptible to the influence of mydriatics and myotics.

424 Ohio Building.

DISCUSSION OF THE SYMPOSIUM.

DAVID W. WELLS: My experience with this tonometer extends over six months; we are indebted to Dr. Bissell for bringing out the subject and presenting it to us so well. This paper might be considered under three different heads: first, the method of using the instrument. I do not remember whether the instructions which I received with the instrument directed the employment of two persons in making an examination or not. I soon came to the conclusion that two persons were necessary, because I found it impossible to look at the index and at the cornea at the same time. Just recently I met Dr. Young at the eye infirmary who told me that he was managing it all himself, but it did not convince me that that is the proper way to do it: a second person is necessary.

Second, the irritation it causes or is liable to cause; I have had one case in which it caused marked conjunctivitis. I believe that it was due to the alcohol in which I sterilized the instrument; although I dipped it into distilled water afterwards, there was enough alcohol left to cause the irritation. After that experience, I cleansed the instrument in alcohol after using, dried it carefully and then just before using it the next time I dipped it in distilled water. Dr. Young agrees with Dr. Bissell that one reading is sufficient, but I feel surer with three readings and shall continue to take that trouble.

E. J. BISSELL: I take three readings, doctor, but I do not take the average of the three as the true measure.

DR. WELLS: It is important to use such a weight as will keep the oscillation of the needle within certain limits. If the needle moves too much it is more difficult to get a precise reading.

The third point is accuracy; does this instrument really measure the tension of the eye? Under that head I would like to mention that Dr. Schiotz examines and tests each instrument before it is sent out. My own instrument was tried by Dr. Markle and found correct. Some have been received that were incorrect. I think that some of them were made by Meyrowitz in this country. I have had no experience with the other form of instrument described by Dr. Bissell. As to the value of the instrument, I agree with Dr. Bissell that it is not necessary when there is marked tension, but when the deviation from normal is slight it is very valuable. Moreover one of its uses may be to train oneself to increased delicacy of touch in that line. In the dispensary my assistant and I have adopted the plan of first testing the tension by palpation and marking it down and then comparing it with the findings of the instrument. Its principal value is in doubtful cases, and that fact makes it all the more valuable because it is important to diagnose glaucoma when it is in its incipency. It answers the question, does glaucoma exist or not? A patient came to me from a distant city, thoroughly aroused because an oculist there had said that she had glaucoma; the mother of the patient was blind from the

disease. She had been under eserine for some months and I was not satisfied that there was increased tension. Under treatment for three months she regained her confidence and all suspicion of increased tension disappeared; her health has been entirely restored from being assured that glaucoma did not exist. It will also be a valuable means of testing the efficacy of our therapeutic measures and other treatment; it will show whether the means that are claimed to reduce tension really do so. I was much interested in the report of the use of galvanism, and I was able to confirm the effects of that measure in three cases. I used one milliamperé only, for five minutes, and in each case there was a reduction of five in tension; but I was sorry to discover that the reduction was not permanent. With the use of sodium citrate the tension was reduced in two cases, in one case no effect was produced and in one the tension was raised after two days. The instrument has helped me to decide whether to operate or not. In one case of glaucoma simplex the tension of the good eye was 18, the suspicious eye was 36 at the beginning and increased gradually to 51. I performed the Le Grange operation and the instrument showed that the tension came down to 18 and remained there, matching exactly the other eye. From palpation alone I should not have felt justified in operating.

A. E. CROSS: As to the tonometer, I would emphasize the statement that great care must be exercised in applying the instrument, to avoid a wrong reading. Not to hold the instrument in an exactly vertical position will cause, in my experience, a greater error in your reading than if the instrument is applied slightly away from the center of the cornea. A short time ago I had a patient on whom I made a series of tests and was surprised to find practically no difference when the instrument was applied to the sclera. Another great source of error is caused by using too much pressure in holding the lids open.

I believe that with the tonometer as with the sphygmomanometer, it is not so much the measure of the absolute tension at any one reading that makes it an important factor in diagnosis, as the study of the variations in repeated readings.

Some one has said in defining simple glaucoma that it is a disease characterized by increased tension when the oculist was absent. With this instrument it is possible to record very slight variations that would be impossible to detect by touch. There is no disease of the eye where it is more important to recognize its prodromata than glaucoma.

With this instrument and a study of the associated symptoms I believe we are in a better position than ever before to help our patients.

JOHN H. PAYNE: Hæmorrhagic glaucoma, as I have seen it, is one of the most hopeless diseases to which the eye is subject. This does not mean that we must cease our efforts to find a possible cure for or amelioration of it, but on the contrary that we must redouble our ex-

ertions. I believe however that constitutional treatment should be begun long before the advent of the special eye manifestations, on the lines suggested by Dr. Ritchie. One difficulty seems to be that the sclerotic changes are so insidious, appearing often in those cases that have led a perfectly normal out-of-door life, that we have very little chance with our present knowledge of heading off the trouble. Such is the fact with a case that I have now under observation. My actual experience with typical hæmorrhagic glaucoma from the advent of the eye symptoms to their close is, as far as as I can trace on my records, confined to four cases, though I have seen others in consultation. For this limited number I hope I am truly thankful.

The special case that I have referred to is that of an Englishman, 65 years of age, presenting the appearance of robust health. Says he has always been well except for muscular rheumatism years ago that has apparently disappeared. He first consulted me two years ago (April, 1910) with a complaint of failing vision and a blurring more or less constant. Examination revealed vision of 20/60 right and 20/120 left, which was readily increased to 20/30 right and 20/60 left by low spherical plus glasses. An examination of the fundus revealed slight graying of left disc, slight cupping, with white streaks along arteries. Tactile tension doubtful plus. I made a tentative diagnosis of doubtful incipient glaucoma of this eye. The field was not recorded. A month later he called upon me for a reëxamination and I found the right vision 20/20 minus, and left 20/40, with much less sensation of blurring. I cautioned him to allow me to keep the case under observation by occasional visits each fortnight at least, but did not see him again until February, 1911, nearly nine months later, and was not astonished to find the condition much worse. Said he had done nothing meanwhile in way of treatment and had not noticed particularly the increased loss of left vision, as his right had continued so good. At this time his left vision had declined to the simple presence of the hand in motion on the temporal side six inches distant. Tactile tension $+1$. Conjunctiva congested, pupil fairly active and of *normal size*, anterior chamber turbid, fundus blurred so much so as to prevent examination of details. No pain. The right disc had suspicion of cupping, although vision was 20/30, nasal and upper and lower field slightly restricted. I put left eye under pilocarpin muriate, four grains to the ounce of boric acid saturated solution, two drops every three hours. This continued for two weeks with gradual loss of vision until the sight had entirely disappeared. The patient up to this time had refused operation, but now consented to an iridectomy, the result of which was, ten days later, an ability to discern fingers at 6" from the temporal side, and tension normal. General anæsthesia was employed. Some two weeks later however a violent acute outbreak occurred that was much aggravated by the pilocarpin, but was seemingly soothed by atropin sulph. These at-

tacks were repeated at intervals until it seemed there could be no control of them, and the sight being lost the patient consented to an enucleation, which was performed. Strange to relate there had been no troublesome hæmorrhage into the anterior chamber immediately following the iridectomy, but now one month later it suddenly began to appear and quite filled it. At this time the vision of the *right* eye began to blur until it was reduced to 20/80 with restriction from the nasal side, with characteristic rainbow halo and increasing tension, for which I advised sclerotomy; this was accepted. I decided on the Galezowski multiple method and was gratified to find an immediate response and a gradual restoration of vision to 20/30 with loss of all subjective symptoms. *This was maintained through all the summer*, from May until the last of November, the patient meanwhile pursuing his usual out-of-door occupation of a mild type. Then began a gradual deterioration and another sclerotomy followed to which there was only a feeble response and loss of vision to 20/200, at which time, Dec. 18, I referred him to Dr. Loring for x-ray flashes. These proving of no avail I referred him on Jan. 5 to Dr. Geo. B. Rice for examination of the nasal tract and application of the Dowling method if indicated. This having been found, with its positive reaction to argyrol, Dr. Rice instituted treatment and finally operated for removal of turbinates on Jan. 9. Having failed by this to affect the trouble favorably and the sight being reduced to 3/120 another sclerotomy was performed, following which the sight *remained stationary for a month*, then gradually resumed its downward course. Just preceding the above mentioned examination by Dr. Rice I should have said that a test of the tension was taken by Dr. Wells with his Schiötz tonometer, resulting in a degree of plus one by this method.

In desperation I suggested an iridectomy which was made Feb. 16, and which resulted in the usual hæmorrhage into the anterior chamber and increase of all symptoms. This hæmorrhage absolutely refused to absorb, but was added to day by day until I began the instillation of warm olive oil three times daily, though meanwhile he had been using a combination of eserine, pilocarpin and dionin 5 per cent. Do not think that I neglected homœopathic prescribing during all this time; I absolutely dwelt and slept and ate with our materia medica, until my brain was alive and flashing with symptoms and their application. At the present time the eye is quiet, no remains of blood in the anterior chamber, cornea clear, pupil small and probably adherent, site of incisions above and below at sclerocorneal junction bulging, and tension by Schiötz tonometer plus one, vision lost except for motion of hand in bright light at 6" temporarily. Still using the warm olive oil.

You may have observed that I have not mentioned the general arterial tension. This was taken early in the case and was quite above normal, though I fail to find record of it. However, it was taken ten days ago by the Tycos and was recorded as "systolic blood pressure through cardigan jacket 205."

I have reported this case in extenso as it is fresh in my mind, has run a typical course with exception of a halt for a few months under a Galezowski sclerotomy, and has had an experience with x-ray flashes and the Dowling method, both of which you may say were applied too late to be of positive value. The lesson I have learned is not to make an iridectomy until the last thing, and *then* not to do it, but if surgery is to be adopted to confine efforts to some form of sclerotomy in which I personally up to the present time have a preference for the Galezowski, as that can be repeated as often as desired. You will note in this connection that the first Galezowski restored the vision and held it there for seven months, and that later when the sight was rapidly declining from day to day a repetition of the same operation held it stationary for a month. I hope that instillations of warm olive oil may prove to be of some definite value, and that this may be tried by others and reported on later.

As to the regulation of the diet I will add to the rules laid down by Dr. Ritchie the caution to warn our patients, especially those afflicted with oxaluria, as is so frequently the case in arteriosclerosis, to abstain from the use of cane sugar, cheese and nuts, as these have above everything else in my experience been productive of an increase of the toxic elements.

We must not however lose sight of the fact that many things may operate to render the blood pressure variable. As bearing on this I will call your attention to Dr. Risley's comment on a paper written by Dr. L. C. Peters before the Medical Society of the State of Pennsylvania, entitled "Arterial Hypertension and Its Relation to Morbid Changes in the Eye," and to Dr. Peters' reply. Dr. Risley said: "The relation of blood pressure to glaucoma depends upon the kind of glaucoma, the age of the patient, and many other things, but I am fully agreed that in a large number of cases of glaucoma, certainly in the inflammatory type, the ocular disease is but one of the local expressions of the symptom complex of arteriosclerosis."

Dr. Peters in closing said: "I simply want to add that the same patient will show marked variation in blood pressure at different times. He will come to the office one day with a pressure of 200 or 225 mm., and another day with 150 mm. Many conditions influence the blood pressure." Think of it, a variation of from 50 or 75 mm.

Fox's experiment with electric light sweats, and simultaneously with instillation of eserine, by which in seven days he reduced blood pressure from 220 mm. to 150 mm. and eye tension to normal, is certainly interesting from a surgical standpoint, but as I have seen in the case just reported by me the hæmorrhage did not take place in the first eye operated by iridectomy until a month later, and I will add that *I was able to detect it oozing from the cut edges of the coloboma*. Thus a surgical case in which there has been an iridectomy would not seem to be safe from this complication until several weeks had elapsed.

The La Grange method for securing a permanent filtration area has however been reported on so favorably as to make it eventually a possible preference over all others. The objections I see to it as now performed are that it is combined with an iridectomy, and does not permit frequent repetition. I can see no reason however why the actual excision of the iris should not be omitted, and simply the button hole in the sclera adopted, thus avoiding possible hæmorrhage from the raw edges of the iris coloboma.

G. A. SHEPARD: I have found in my own experience that iridectomy leaving some portion of the pigment in the wound was the most satisfactory.

A. B. NORTON: I would like to ask Dr. Bissell if I understand him to say that the effect of galvanism was entirely temporary?

DR. BISSELL: I said that it was so in that particular case; in that case it did nothing permanent. I have seen it promptly reduce the tension and keep it down for a week or longer. In many cases it has lowered it very materially.

DR. NORTON: Were the cases in which you used the citrate of soda simple cases or the inflammatory variety?

DR. BISSELL: They were glaucoma simplex.

DR. NORTON: I have gotten some results from it in simple cases but some authors claim that it is of most service in postoperative cases and does comparatively little good in the simple ones. I endorse the use of the tonometer in doubtful cases. We had one case in the clinic that was extremely doubtful: three men claimed that tension was increased and one that it was if anything the other way. The tonometer verified the opinion of the one man instead of the three. The indication for operation in the simple variety depends upon the extent of the field of vision more than anything else. A case consulted me last fall with glaucoma; I found vision about normal in one eye and 15/20 in the other. There was the characteristic cupping of glaucoma of the simple variety. The normal eye was just beginning to have a contraction of the field. I placed him under myotics without operation. He became a little uneasy and asked about having a consultation. I told him I did not need one; "you are living over a powder magazine which may blow up any moment." He called on Dr. Weeks for advice. Unfortunately I had stated in a letter that the case should not be operated on and I told him that Dr. Weeks would probably advise operation; you go to other specialists, some will say not to operate and others to operate at once. Dr. Weeks advised operation in both eyes at once. An old school relative of the patient took him to another specialist who advised operation on one eye only. He consulted Dr. Knapp who also advised operation. Still he did not want to be operated on and hesitated. All three of these men overlooked the field of vision in the case, the most important feature of it so far as the advisability of operation is concerned. Finally he went back to Weeks, and I have a letter in

my pocket giving the history of the case. He took that history back to Weeks describing how he had had glaucoma for ten years and yet had a good field of vision, and Weeks then advised against operation. With this history before them the other men he had consulted agreed with Weeks and myself. There was neglect among all of them in not testing the field of vision and in not getting the history of the case.

In another case of glaucoma simplex which I shall operate on soon, because the vision in one eye is only 15/200, the other eye nearer normal; I advised mydriatics at first. It had taken only six months for the vision of the poor eye to go down from normal to 15/200. Here was a case in which the vision had degenerated rapidly, the field of vision began to be contracted and was not enlarged under the use of mydriatics. I have no doubt in such a case about the best thing to do. It is a double iridectomy case. The more the field of vision is contracted the more doubt is there about the result. I have seen operation on some cases result in loss of vision in both eyes.

DR. WELLS: I have considerable interest in the substitutes for iridectomy but I cannot subscribe to Dr. Denman's statement that cyclodialysis is an easy operation to perform; it seems to me quite difficult. I have tried it on a few eyes that were about to be enucleated and it seems to me difficult. The La Grange operation is simplicity itself; it is described in Wood's System and nicely illustrated. The La Grange operation is a decided advance on our methods where the tension is not greatly increased in that it leaves a permanent hole in the sclera covered only with conjunctiva which acts like a safety valve. I have seen some good men try to do cyclodialysis and make a false passage; I should like to hear the experience of others about it.

F. O. NAGLE: I would like to know if anyone here has come across any complications arising from these substitutes for iridectomy. At the clinic in which cyclodialysis originated I have never seen it performed during the fourteen months that I was there.

In regard to the La Grange operation—a complication which I often saw in the cases operated at Fuchs' clinic was iridocyclitis; this made its appearance about a week after the operation. I have seen an eye lost through infection entering the cystoid scar which usually follows this operation.

DR. BISSELL: Does the appearance of the iris have anything to do with the selection of the site of the operation? Should it always be done upward or should we sometimes select some other locality? It seems to me that all such substitutes as the Elliot, La Grange, Herbert and Holth operations aim at removing a piece of scleral tissue to secure better drainage. All except Elliot tried to do something else at the same time. I have done three Elliot operations, or simply trephining the sclera with a Von Hippel trephine. I had no irritation or prolapse afterwards, and the Schiotz tonometer showed great improvement in the tension.

DR. NAGLE: Schnable's theory of the glaucomatous condition is that there is a sort of cavernous excavation around the optic disk; the primary change, he claims, is in the vitreous and optic nerve. Elschning supports that theory and a year after Schnable's death Von Hippe came out in an article decidedly in favor of the crucial point in the pathology of glaucoma being in this cavernous excavation. In regard to hyperopia or myopia being a factor, Parsons is decidedly skeptical about hyperopia having anything to do with it. Undoubtedly the idea is right that the ciliary body and the lens push the iris forward.

PRESIDENT SUFFA: I do not understand how the pressure of glaucoma could be in the anterior chamber. How could there be pressure there when the iris lies in the anterior chamber; unless there were adhesions there. It does not seem logical.

DR. NAGLE: The secretion is dammed back.

THE PRESIDENT: How can that be?

DR. NAGLE: The canal of Schwamm would be closed, you would have a deep anterior chamber followed by a shallowness; a reversed flow of lymph takes place.

PRESIDENT SUFFA: I understand that, but you say that the pressure is greater in the posterior chamber than in the anterior; now how could that be when the pupil is an open door to equalize the pressure in both chambers. I can only imagine it possible if there was a complete adhesion of the iris all around.

J. R. MCCLEARY: The doctor also made the statement that the lens was pushed forward; it would be pushed backward if the greater pressure in the anterior chamber is admitted.

DR. NAGLE: I meant the posterior vitreous.

THE PRESIDENT: Oh, that is a different proposition entirely.

DR. NAGLE: In regard to the tonometer it opens a good field for original work to find out the relation between the tension and intra-ocular hæmorrhages; the relation of ocular tension to the blood pressure; the connection, if any, between thrombosis of the central vein of the optic nerve and the eye tension; in all these studies the instrument would be very valuable. It would throw more light upon the management of such cases. The ectropion of the pupil is usually above and to the inner side, but as a matter of fact the operation may be done on other parts of the iris.

DR. BISSELL: Most operators make the iridectomy in the upper part.

THE PRESIDENT: Do you apply electricity to the eyeball itself?

DR. BISSELL: No, I apply it only over the closed lids. You have got to use a strong current, constant application and straight galvanism to get results.

G. W. MACKENZIE: I believe that the reason the upper part of the iris is selected for operation is on account of the cosmetic effect. In his closing remarks I should like Dr. Nagle to tell us something about the Schnabel theory of vacuoles in the course of the optic nerve asso-

ciated with primary glaucoma. I would like to ask Dr. Nagle if he has found a greater tendency for glaucoma in hyperopic than myopic eyes, on account of the narrower anterior chamber, because of the heavier ciliary muscle in hyperopes according to Salzmann. In cases of glaucoma secondary to cyclitis we find that Fuchs attributes as one of the important elements the swelling of the ciliary body pushing the iris forward and narrowing the angle of the anterior chamber. Dr. Nagle did not refer to the late atrophic changes immediately surrounding the nerve, and discernible with the ophthalmoscope. I congratulate Dr. Nagle on his excellent paper.

DR. I. O. DENMAN: Granting perfection of technique there should be no more danger of postoperative complications in the surgical treatment of glaucoma by iridectomy or its substitutes than in any other ophthalmic surgery. An iridocyclitis could arise either from infection, which is inexcusable, or from traumatism, which is avoidable by care and experience in the performance of cyclodialysis or other substitutes for iridectomy.

One cannot, unfortunately, be guided entirely by the action of certain European surgeons in their showing a preference for some procedures and a disregard for others, solely on the merit or demerit of the procedures themselves, from the simple fact plainly stated that their course in such matters is too often determined by a keen professional rivalry, or jealousy if you please, which is manifest not only between men, but between clinics in the same city, between cities and countries.

We must after all try out what appeals to us and cling to that which is good and serves us well, irrespective of whether it is now the proper thing in any certain medical center.

ADENOIDS.

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Fulton, Mo.

MUCH has been written and even more has been done in recent years with reference to that mass of lymphoid tissue located in the nasopharynx and known under the various names of Luschka's tonsil, adenoids, etc.

Strange as it may seem to the average mind in this day of unusual activity along the line of pathology and preventive medicine, practically all effort has been directed toward the obliteration of this tissue with scant regard to any possible function it may have in the physiological economy.

Very little has ever been done toward the differentiation of pathological from physiological conditions of this tissue, and it has been the habit of some very eminent authorities to operate for adenoids whether there were any symptoms to justify operation or not.

Vincent Green, in the London Homœopathic Hospital, reported 4,000 cases in which he had operated for adenoids. Five per cent. he reported as bad cases, 65 per cent. as in the average condition of health and 30 per cent. as in splendid health.

This would appear to a conservative observer as a reason for raising the question as to what constitutes a pathological condition in this tissue.

The adenoid tissue as you know is a part of the pharyngeal ring and is found in perfectly normal children. It extends across the posterior wall of the pharynx from one fossa of Rosenmüller to the other and is composed of a mass of lymphatics and muciparous glands somewhat similar to the faucial tonsils. This tissue is particularly well developed in children and, like the faucial tonsil, it gradually atrophies after puberty.

Standing as it does at the very last portal to the respiratory organs and supplied with an excess of leucocytes and lymphatics it would not seem an overdrawn theory to assume that it has at least in some small measure the function of a guardian against the introduction of objectionable foreign material and bacteria in to the lungs.

In the large majority of cases we find the condition of adenoid hypertrophy coexistent with hypertrophy of the turbinates and more or less obstruction further forward in the nose. Most writers agree that this condition, by causing more or less rarefaction of the air in the posterior nose, will congest the lymphoid tissue in the nasopharynx and thereby stimulate it to actual hypertrophy. At any rate we find in this climate a very large percentage of hypertrophy of the pharyngeal tonsil of greater or lesser degree and the question naturally arises as to what constitutes a pathologic condition.

In review of something like a hundred cases we find that this condition is most frequently found in the patients with tubercular family history; this is contrary to the general report of most authorities.

Pathologists tell us that they have found very few cases where there were tubercular bacilli in the hypertrophied tissue, yet we have found that in over seventy-five per cent. of the cases which came under our observation there has been a case of tuberculosis either in the same or the preceding generation.

Agreeing with Dr. Green that this condition is found in most children in this or a similar climate, and also agreeing with him that many cases recur after the most careful operation, we are inclined to question the value of operative procedure, *per se*, as a cure for this condition.

In the first place we have found that where there was any considerable amount of hypertrophy of this tissue with consequent obstruction of the nasopharyngeal space, that there was in every case quite an array of constitutional symptoms which required special attention and that unless we treated the whole patient as well as the nasopharynx we were sure to get very limited result from even the most painstaking operative procedure.

We have also found that unless we took special care of the post-nasal space after the operation and treated it thoroughly till all the catarrhal symptoms were removed we were almost sure to have a recurrence.

Of course we can account for the adenoid facies, mouth breathing and sluggish mentality of these patients on the ground of interference with the lymphatic circulation in the brain, but we cannot always connect the general symptoms found in many of these cases with postnasal obstruction.

Of the local treatment we have found suprarenal extract to be the

most valuable. This we apply through the nose with an applicator and thus get the action on both the turbinates and the adenoids.

In many cases where there is marked objection to operative procedures we have been able to obtain quite satisfactory results with the application of adrenalin 1:1000 applied locally once or twice a day.

In fact we have come to consider it of such value that we have used it without operation in practically all of the milder cases and with quite satisfactory results.

With regard to the internal medication we find that all of the remedies which are available in catarrhal conditions of the nose and throat are necessarily a part of our armamentarium in this condition. Many remedies of a more deeply acting nature are found necessary in combatting the more pronounced constitutional conditions and in some cases all that is necessary to effect a cure is to correct the habits and dietary or change the climate.

The most frequent and almost constant sequel of this condition when it is at all grave is the involvement of the Eustachian tube and middle ear.

The tubes must be opened and kept open until they are in a condition to stay open in order to avoid serious trouble with the middle ear.

Microscopic examination of conjunctival discharge is but little trouble and very interesting. A solution of Loeffler's methylene blue may do; it takes but two minutes. Still better is the solution of Gram-Jadassohn, because it furnishes a number of different points at once. This method, of course, is more elaborate and takes a few minutes longer. But it allows immediate diagnosis of the species of germ we have to deal with. We call the Gram staining "positive" when the germs are stained blue, and we know those which will do this; staphylococcus, streptococcus, pneumococcus, the species of diphtheria, subtilis, sarcina, aspergillus fumigatus, streptothrix, actinomycosis. The test is "Gram negative" when the germs discolor, *i. e.*, lose the blue stain, and remain red: Koch-Weeks', Pfeiffer's influenza bacillus, diplobacillus Morax-Axenfeld, diplobacillus, Petit, bacterium coli, gonococcus, meningococcus, bacillus pyocyaneus, Friedlander's pneumococcus, etc. It is advisable to obtain the secretion from the upper fornix where it is least adulterated with dust or other germs, which latter we will find an abundance at the lower fornix and yet more near the caruncle. —Stoll, *J. of O. and O-L.*

HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

DEPARTMENT EDITOR, PHILIP RICE, M. D.,

San Francisco, Cal.

A RESTRICTED MATERIA MEDICA.

Eppur si muove! We are interested in reading the following evidence that the old school is getting ready to recognize that *similia similibus curentur* (let likes be treated with likes) is legitimate. A few years ago their leading men said that they should avail themselves of all resources that could benefit their patients—the while they continued (officially) to ignore our homœopathic materia medica. The following platform, once generally adopted, will be, virtually, recognition of homœopathy:

Dr. S. Solis Cohen opposes the “strong” movement among some pharmacologists to “restrict the materia medica to a small number of drugs and chemicals known to be active and having the approval of the authorities,” which movement is another evidence of the drift to a medical bureaucracy. Discussing such a paper lately he said:

“I have no objection to Yale’s restricting itself to twenty drugs, or to Oxford’s restricting itself to four, or to Harvard’s restricting itself to none; but if the patient happens to be under my care and my judgment tells me that I shall use a remedy which is outside of the twenty or the four that are sacrosanct, or even the nine hundred and forty that are officialized, what is my duty under the circumstances? To bow to some prohibitive restriction imposed in ignorance of the existence of that patient and of the conditions that he presents, perhaps in ignorance of the existence or of the influence of the remedy I propose to use? Maybe so—but I do not see it in that light. My patient is entitled to my knowledge unhampered by orthodox, or even official, ignorance.

“For example, I have had an interesting discussion lately with regard to *aspidospermine*. This potent drug does not find place in the *Pharmacopeia* of today; it probably will not find place in the *Pharmacopeia* of next year or the year after. *Aspidospermine*, therefore, omitted from the *Pharmacopeia* to please restrictionists who know nothing whatever about it from personal observation, must not be prescribed by me on account of such omission, although I should not know how to treat certain cases of asthma without it. I know how asthma is treated without it, of course, but I should not know how I could give my patients the benefit of the knowledge and skill they are entitled to.

“There is no objection to any physician restricting himself to the tools that he knows how to use; *but there is every objection to his attempting to restrict some other physician who has other, and perhaps*

*better, tools and methods.** The Pharmacopeia should admit every drug that is known to be of advantage in the treatment of the sick, no matter how seldom it is prescribed and no matter how many other drugs there may be which have similar influence. On the other hand, it is true that we can simplify the teaching of materia medica and improve the practice of therapeutics by confining our work in the schools to a certain number of typical drugs, provided however that these drugs are to be taught as types and not as exclusives."

NOTES ON PHYTOLACCA.—PHILIP RICE, M. D.

It is questionable whether this remedy receives the attention from the oculists that it deserves. In cellulitis, tenonitis and panophthalmitis, no matter from what cause, it is a remedy of the very first importance. The inflammatory process is slow in its course, and though it reaches a point where the parts become fearfully swollen and very hard *there is but slight pain*. This is a very characteristic sign, absolutely reliable, and surely one that cannot be overlooked. The eyeball is pressed forward and its mobility is greatly impaired; the lids are swollen, hard and purplish in color; the chemosis is so severe as to quite cover the cornea.

Its circumorbital pains due to syphilis with nightly < bring it in a class with asafetida and mercurius. The chief points of difference between it and these two remedies are that the phytolacca pains are not only < at night but continue quite as severe into the forenoon (like rhus tox.) and, too, in that they are not specially < by heat, as in the case with these two remedies and the antisiphilitic remedies generally.

Phytolacca has many points in common with rhus tox., namely, aching and stiffness of the muscles < at night and in the morning; inflammation of the lids, erysipelatous in character, with intense burning; suppurative and nonsuppurative inflammation of the eye following surgical operations. The chief point of differentiation lies in the fact that almost if not entire absence of lachrimation characterizes phytolacca and the opposite characterizes rhus tox. Then, too, phytolacca has an underlying syphilitic condition usually while rhus tox. has a rheumatic.

Incoördinate muscular activity, with diplopia, giddiness and headache, is a condition that frequently requires this remedy. In this it is still somewhat like rhus, but more like causticum and gelsemium. In the latter two the condition is clearly one of paralysis, whereas under phytolacca the trouble is in all likelihood due to syphilis involving the apparatus in some other than a paralytic manner.

We have in this remedy then the syphilitic history, or base, of asafetida and mercurius, the paralytic symptoms of causticum and gelsemium and a number of the modalities of rhus tox. as well as the pathological condition for which many prescribe rhus in a routine

*Italics ours.—MOFFAT.

way, namely, cellulitis, tenonitis and panophthalmitis following surgical operations.

HEMIANOPSIA.

Study the following remedies if your patient has:

Hemianopsia (the provers were indefinite as to which side was lost): Caust., calcarea carbonica, plumbum, sepia.

Lateral hemianopsia: Morphine, muriatic acid, natrum muriaticum. Side not specified.

Right hemianopsia: *Cocculus*, *lithium carbonicum*, *lycopodium*.

Left hemianopsia: *Cicuta*.

Vertical hemianopsia: Plumbum (not specified). Upper half lost, *Aurum*.

Horizontal hemianopsia (indefinite): *Sepia*.

The above are corroborations in Allen's Handbook, of Norton and of Kent's Repertory. The following in Kent were *not* found in Allen: *Right h.*—calc., cycl., glon., iod. *Left h.*—calc., nat. carb. *Vertical h.*—bov., calc., caust., cic., gels., glon., lith., lyc., morph., mur. ac., nat. m., op. *Upper half lost*—ars., camph., dig., gels. *Lower half lost*—aur., cain., sulph. Kent gave morph., mur. ac. and natr. mur. as vertical, whereas they are, according to Allen, lateral.

MOFFAT.

The International list of causes of death is distributed free to all physicians by the Bureau of the Census, Washington, D. C.

No. 45 is "Cancer of other or unspecified organs (state organ). Preferably reported as carcinoma, sarcoma or epithelioma of ———."

No. 51, "Exophthalmic goiter."

No. 75, "Diseases of the eyes and their adnexia." (Name the disease.)

No. 76, "Diseases of the ears." (Name the disease.)

No. 86, "Diseases of the nasal fossæ." (Name disease.)

No. 87, "Diseases of the larynx." (Name disease. Diphtheritic?)

No. 100, "Diseases of the pharynx." (Name disease. Diphtheritic?)

"Operation," "surgical operation," "surgical shock," "amputation," "hysterectomy," "laparotomy," etc., are indefinite and unsatisfactory. Such a certificate would indicate that the surgeon signing it was the direct cause of death. Name the disease or the form of external violence.

The disease causing death should be first named, then the name of the contributory (secondary) cause, if any, and third, the duration of each cause.

Twenty countries participated in this classification, in 1909, and still others have adopted it.

JOURNAL CLINIC.

Iodine skin sterilization is inadvisable on the face and in individuals with a sensitive skin. Iodine dermatitis in susceptible individuals may be prevented by applying only a single coat of the tincture (U. S. P., 7 per cent. or half that), and by washing off after operation with alcohol.

The bacillus lactis Bulgaricus is the only known lactic acid bacillus that will survive ingestion, reach the large intestines, continue to live there, creating nascent lactic acid which is antagonistic to the growth of pathogenic bacteria. It will arrest the growth of putrefactive bacteria. Clock experimented with various preparations supposed to contain this bacillus but secured no definite result; most of the preparations on the market contain chiefly paralactic bacilli. Through the Johns Hopkins Hospital a pure culture of the bacillus lactic Bulgaricus has been imported from the Pasteur Institute; this culture has been dried, mixed with milk sugar and compounded into a tablet. Twenty of these tablets have been given in 24 hours to infants five or six weeks old.

Tuberculous laryngitis. Locally, Guy H. McFall has derived the best results in these cases from a fresh 3 to 5 per cent. solution of formalin. The larynx should be first cleaned with an alkaline solution, and then a cotton swab saturated with the formalin rubbed over the surface. The burning sensation following is not especially painful except in the most advanced cases, and may be prevented by applying cocain before hand. The throat feels clearer, and in many cases the cough is eased by this treatment. The author has seen early cases clear of any signs of laryngeal trouble in one week, but the average case generally extends over a period of several weeks or months.

The action of the formaldehyde on the area involved causes a fibrous encapsulation of the tuberculous process, walling it off or destroying it by a slow process of fibrous transformation. As long as these areas remain in a quiet condition no trouble need be feared, but if this protective wall is broken down the old foci will invade new areas, and recurrences are as a rule more severe and harder to conquer than the primary lesions.

When an irritating cough is present good results may be obtained from intratracheal injections of guaiacol, menthol, camphor and eucalyptus with a base of olive oil, 2 to 5 cc. being used.—*J. of the Mich. Med. Soc.*, July, 1912.

Do not give antitoxin to an individual who is subject to hay fever, asthma, etc., from or in the presence of horses. Such antitoxins, as

diphtheria and tetanus, are prepared with horse serum to which the above patients are hypersensitive: fatalities (anaphylaxis) have occurred from neglect or ignorance of this precaution.

The outer covering of bacteria is *chitin*, a substance containing much glucosamin (sticky from hydrolysis), and bacteria contain protein, lipoids (fat), glycogen and cellulose. Their digestion requires different ferments: the equivalents of a pepsin, trypsin, amylase, lipase, chitinase and cellulase.

All the alkaloids are polyphenols, and therefore chemically related to the tyrosin of all proteins, human, beast, fish and plant. Every such substance is poisonous to us (medicinal) by reason of our cells carrying oxidases in their nuclei; destruction of the nucleus is death to the cell. These poisons all destroy disease germs. Every cell contains oxidases capable of converting sulphur into sulphurous anhydride.

Gelatine is the one protein incapable of arousing anaphylaxis; it is impossible to arouse any degree of this reaction in albino animals. **Tyrosin** is almost or wholly absent from gelatine, is present in relatively small amount in albino animals, is practically a constant constituent in all proteins but gelatine and in the specific toxins extracted from proteins. Cystin (the sulphur holding protein) is absent in protein that cannot produce anaphylaxis.

Calcium sulphhydrate as a depilatory for removing the hair before an operation, etc., is made by passing sulphuretted hydrogen through a mixture of 2 parts of freshly slaked lime (free from gritty particles) and 3 parts of water. A pasty mixture is obtained, which is not in the least caustic. The paste is spread in a thin layer, is left on for 5 minutes and then removed with tepid water and a towel. The skin will be found absolutely clean, better than when shaved by the sharpest razor. If touched with hands wet with sol. corrosive sublimate, the hands will get black, due to the formation of black mercuric sulphide.—*Critic and Guide*.

Bites of Insects. Neal (*China Med. Jour.*) states that he has found the following procedure very useful: Take one ounce of *Epsom salts* and dissolve it in one pint of water, wet a bath cloth so that it will not drip and rub the body well all over, do not wipe afterward but dress, and flies, gnats, fleas, bedbugs, mosquitoes, etc., will never touch you. If one is exposed more than usual, being near water or in a forest, then make a somewhat stronger solution, wet a cloth and rub the face, neck, ears and hands well—do not wipe, but allow it to dry; it will leave a fine powder over the surface that the most bloodthirsty insect will not attack. Besides, the solution is healing and cleansing; it will heal the bites, subdue the consequent inflammation, and cure many diseases of the skin.—*Hom. World*, Jan., 1913.

Experimental researches on wounds of the ciliary body. Contino, *La Clinica Oculistica*, Feb.-March, 1911.

As soon as a wound is made in the ciliary body, the unstriped fibers retract and cause a gaping between the lips of the wound, into which the vitreous protrudes. Blood, coming from the cut vessels of the region, infiltrates into this vitreous.

If the wound is small and radial, the blood goes along the fibers of the zonule only as far as the edge of the lens. If the wound is more extensive and transverse, the blood can be recognized as far as the fundus. At the same time there comes about an intense hyperemia of the ciliary processes in the neighborhood of the wound, which extends to the whole of the ciliary circle, to the iris, and even to the superjacent sclera.

If the injury has perforated the sclerotic, the external wound becomes closed by the edema of the conjunctiva, even if there be prolapse of the vitreous.

Repair begins on the second day. In wounds which have not passed beyond the ciliary body and have begun in the cornea, we can see that the loose tissue (the continuation of the suprachoroidal tissue) between the sclera and the ciliary muscle, shows proliferation of the fixed cells (karyokinetic changes). These new formed elements unite into fibers which run from one side to the other of the wound and eventually fill the gap between the scleral fibers, if these have been incised. On the third day, the new formed tissue protrudes a little beyond the surface of the ciliary body.

The vitreous takes no active part in the process of repair. In the case of penetrating wounds of the sclera, the suprachoroidea supplies part of the material of repair, but the episcleral tissue is more important, sending a mass of new formed elements which project between the lips of the scleral wound and join the other elements. The epithelium of the ciliary region of the retina never shows any sign of repair in any wound, and this is the case also of the smooth muscle fibers of the ciliary muscle. A true healing, therefore, is never seen in these wounds.

The intense hyperemia which is set up in the ciliary body after a wound is sometimes followed by atrophy, especially if the processes have been wounded. This hyperemia begins to diminish on the twentieth day. By the thirtieth day the surface is flat or a little depressed; the fibers of the scar in the sclerotic have assumed the appearance of the scleral fibers, but there is an excess of fixed elements in the new tissue and of small vessels running into it from the episclera. The scar tissue in the ciliary region shows a less regular disposition and appears made up of stellate cells. The fibers of the sclera take small part in the process of repair. The conjunctiva heals very rapidly; even after twenty-four hours the scar is invisible. This rapid healing has a very favorable action on the later course of these wounds. *Abstr.*, Aug., 1911, *Ophthalmoscope*.

CURRENT LITERATURE.

WM. McLEAN, M. D.,
New York.

FRANK O. NAGLE, M. D.,
Philadelphia.

ANNALES DES MALADIES DE L'OREILLE, DU LARYNX, DU NEZ ET DU PHARYNX. Nov. 1912.

1. Une enquête collective internationale sur l'ozène. LOMBARD, MAHU, SIEUR.

2. Bouton de Biskra du pavillon de l'oreille. GUARRACCIC.

*3. D'un accident peu connu de l'adéno-amygdalotomie, de la chute des végétations et amygdales dans les voies aériennes. J. GUISEZ.

4. Cerebellar abscess, diagnosed, operated and cured two years ago. CURTELLET and HENRI ABOULKER.

5. Nasal stenosis and lingual adhesions, following a fire-arms wound; cure by operation. L. BAR.

6. Galvanocautery with protected blade for dividing rubber set teeth caught in the esophagus. CLAQUE.

*3. Cyanosis, suffocation or infectious bronchopneumonia during or several days after the operation, due to aspiration during anesthesia of blood more or less septic, and of debris from the adenoids or purulent tonsils.

Precautions: While curetting be careful to keep the tongue depressor against the posterior wall of the pharynx; bring the head briskly forward as soon as curettage is ended; examine the cavity before operating, avoid deep narcosis.

ANNALES D'OCULISTIQUE. Dec. 1912.

*1. Contribution a l'étude de l'accommodation chez les oiseaux. GEORGES LEPLAT.

2. Huit cas d'opacités cornéennes congénitales. DR. FRANS LA-COMPTE.

3. La réaction de Wassermann dans les kératites interstitielles, les iridochorodites, les paralysies oculomotrices et les atrophies optiques. LIEGARD et OFFRET.

4. Ostéite typique du frontal. HENRI FROMAGET.

*5. La diplopie binoculaire hystérotraumatique, existe-t-elle? DR. BETTREMIEUX.

6. Balle de revolver au chiasma. Cecité binoculaire consécutive.
DR. G. N. FOY.

*1. The results of histological study of birds' eyes confirm and corroborate Hess' conclusions on the accommodation in animals. The pupillary sphincter in birds is well developed because it plays an important role in accommodation. Here, as in mammals, the dilatation of the pupil is assured by the contractile fibrillar membrane of Bruch. This action of the iritic musculature is concomitant with that of the ciliary muscles.

*5. Hysterical diplopia is often spoken of but the distinction is not always made between monocular and binocular diplopia. Taking for his text a man who 5 months previously had suffered a violent contusion of the left orbit with edema, ecchymosis of the lids and spitting of blood, complained of marked diplopia with considerable separation of the images in the external field of the wounded side, diplopia vertical and slightly crossed, the left image being the higher. Downward movement of the left eye is slightly limited. Prisms absolutely exclude simulation. He is not bothered so much as he was a few months ago by a marked diplopia in the lower part of the visual field, but in front and particularly on looking to the left the visual trouble has persisted for several weeks without appreciable change. Pain on deep pressure at the level of the inferoexterior part of the orbit suggests that the lesion is there, although nothing abnormal can be detected by palpation of the orbital rim. Buccal transillumination showed the maxillary sinus transparent several weeks ago, but failed to illuminate either pupil. Radiography did not reveal any lesion. On looking in any direction the separation of the images could not admit paralysis of that nerve or functional impotence of that muscle; it is a paradoxical diplopia may be of mechanical cause by elevation of the globe such as might be due to the remains of a bloody effusion; one may yet admit that the muscular functioning is embarrassed by a cicatricial bridle.

Bettremieux has personally observed several cases of paradoxical diplopia consecutive to trauma of the orbit; in these cases the hypothesis of hysterotraumatism was not considered, and the course of the symptoms in each case showed that it was wrong not to consider it. He considers the field open to hypothesis in cases of binocular diplopia appearing after a traumatism when we can not locate the seat and nature of the lesion. "Should we admit, or could we eliminate, the possibility of a purely nervous functional trouble of hysterotraumatic

nature?" Sauveneau and Tellais expressed the opinion that there might be such cases. The author believes that we should admit the diagnosis of binocular hysterotraumatic diplopia only after having eliminated all other hypotheses. We should be on our guard against the tendency to pronounce as hysterical every symptom that we find difficult to interpret or group nosologically when we think we find that the patient has some stigmata of nervous disease.

KLINISCHE MONATSBLÄTTER FÜR AUGENHEILKUNDE.

Dec. 1912.

Ueber einen eigentümlichen Fall von Ciliarkorpersarcom. DR. T. AKATSUKA.

On Nov. 27, 1911, Professor Fuchs presented a case of intraocular tumor before the Vienna Ophthalmological Society. Because of the clinical appearance he made the diagnosis of an epithelial tumor of the retinal pigment of the iris or ciliary body.

The patient was 26 years of age. He first noticed a gradual diminution of sight for ten months previous; at the time of presentation the eye was blind, and for the past two days painful from secondary glaucoma.

The peculiarity of the clinical picture was that the tumor presented itself in the pupillary area, and that positively it did not arise from the anterior surface of the iris. The only possibility was of its arising from the posterior surface of the iris or ciliary body.

Fuchs excluded sarcoma of the iris because such arise from the anterior surface of this membrane.

Melanoma of the iris arises from the posterior surface and has a different color and structure than the case which he presented to the society.

Sarcoma of the ciliary body was excluded because its usual course is to penetrate through the root of the iris and anterior chamber.

A histological examination of the enucleated eye determined that the tumor instead of being an epithelioma was a sarcoma of the ciliary body.

Conclusions: Sarcoma of the iris, ciliary body and choroid have definite clinical characteristics which enable the ophthalmologist in the majority of cases to make a correct diagnosis; only those sarcomata of the ciliary body known as ring sarcoma give difficulty of diagnosis because of their growth into the pupil.

Up to the present time there has been only one case previously reported by Hirschberg and Bornbaker in 1896.

THE JOURNAL OF OPHTHALMOLOGY AND OTO-LARYNGOLOGY.

Jan. 1913.

1. The significance of arteriosclerosis in the fundus oculi. EMORY HILL.
2. The ozena problem. RALPH H. PARKER.

OPHTHALMOLOGY. Jan. 1913

1. Observations concerning foreign bodies within the eye or orbit. W. K. ROGERS.
2. The operative treatment of keratoconus. PROF. DR. GRUNERT.
3. Heredity in relation to the eye. GEORGE FRANKLIN LIBBY.
4. Roentgenography of foreign bodies in the eyeball. G. H. STOVER.
5. Colored glasses for hunting and as a protection against snow and other light. SANTITATSRATH DR. FRITZ SCHANTZ.
6. Visual symptoms of accessory sinus disease.
7. The new antiglaucomatous operations. PERCY FRIDENBERG.

JOURNAL OF THE AMERICAN INSTITUTE OF HOMŒOPATHY.

Jan. 1913.

1. The value of homœopathic remedies in postoperative cases. J. H. MCCLELLAND.
5. The value of homœopathic remedies in diseases of the eye. HERBERT D. SCHENCK.
6. The value of homœopathic remedies in diseases of the ear. HOWARD P. BELLOWS.
7. The use of homœopathic remedies in diseases peculiar to the upper air tract. GEORGE B. RICE.

BUFFALO MEDICAL JOURNAL. Jan. 1913.

3. Address before the N. Y. State Optical Society, June 17, 1912. CHARLES F. PRENTICE, M. E.
4. Is optometry the practice of medicine? F. PARK LEWIS.

MEDICAL REVIEW OF REVIEWS. Jan. 1913.

14. Trachoma at home.

MONTHLY CYCLOPEDIA AND MEDICAL BULLETIN. Jan. 1913.

*2. An experiment to test the effect of oil of orange on the nasal mucosa. By GEO. R. JARVIS and ALBERT ABRAMS.

3. Modern methods of drug standardization. By NOBLE P. BARNES.

*4. A simple and rapid way of filtering agar-agar. By MICHAEL G. WOHL.

*5. Physical economics. By ERASTUS EUGENE HOLT.

*2. Essential oil of orange inhibits nasal reflexes elicited by ether alone. Under the microscope it was seen that with ether alone the motion of the "ciliary epithelial cells" was inhibited, and adding orange oil to the ether augmented this motion. If the nose is not cocaineized ether, and other vapors, evoke definite visceral reflexes, *e. g.*, dilatation of the stomach (hence nausea) and lungs.

"Asthma from odors" is due to pressure upon the heart by an acutely dilated stomach.

Gwathmay uses 15 oil of orange and 35 water in one bottle of his apparatus and ether in the other two. Only half the amount of ether otherwise required, its odor is disguised, no preliminary stage of excitement, quick recovery with no nausea or vomiting.

*4. A cork, pierced by the neck of a glass funnel, fits the neck of a larger tin funnel; fill the space between the funnels with water, boil and keep this uniformly hot with two Bunsen burners, one at a higher level than the other. Filter through a plaited filter paper inside the glass funnel.

*5. An effort to establish standard measurements and mathematical formulas of the economic value of man and of damages—for the body as a whole or any of its systems, *e. g.*, ears.

A scientific paper well worth close study and adoption; it is to be concluded in the February issue. E (earning ability) = F (functional ability) \times T (technical ability) \times C (competing ability). $F = a \times b \times d \times g$ the nine systems of the body in four groups. System 8 (cerebrospinal system, nerves and organs of special sense) consists of u (brain its membranes and nerves), v (spinal cord, membranes and nerves) w (nerves and organs of special sense).

A standard of measurement is required for each of the different systems and organs, keeping in view the law of average. The scientific standard may be divided into tenths for convenience; for most vocations the full scientific standards of sight and hearing are not needed.

The range of *sight* (Magnus) in vocations requiring higher acuity is from .15 to .75 — a range of six of the ten-tenths into which the scientific standard is divided. In vocations requiring lower acuity the range is from .05 to .5.

For the economic standard of measurement of *hearing* (average vocations) a range from .7 to .1 of the scientific standard is sufficient. Thus one may lose .3, according to the scientific standard, and still have sufficient hearing for economical purposes. Losing .9 he would have a total loss of hearing for economic purposes although there was .1 left, because that is not sufficient for economical purposes.

THE OPHTHALMIC RECORD. Jan. 1913.

- *1. A case of unusual atrophy of the choroid, by BURTON CHANCE.
- *2. Dentistry and optometry: a parallel, by W. H. CRISP.
- *3. Atrophy of the optic nerve following injection of olive oil and lanoline for the removal of wrinkles, by W. A. FISHER.

4. A case of injury in which six pieces of steel were discovered in an enucleated eye; only one piece being found by the x-ray, by F. ALLPORT.

5. Glaucoma, by J. W. GOOD.

*1. Unusual atrophy of the choroid. The patient with this unusual choroidal picture presented himself at the Wills Eye Hospital for treatment for a mild conjunctivitis, and in the routine examination the choroidal atrophy was discovered. He was 30 years of age, a tailor by occupation, and had served in the Russian army. The visual acuity was 6/12 in the right eye and ability to count fingers at 3 feet in the left. Right fundus was normal, but the left showed two singularly distinct and marked areas of choroidal atrophy. At first sight the appearance was as of three papillæ in the fundus, the atrophic spots being about on a line and about a disc's length from each other. The choroidal atrophy was complete, the sclera shining with a pearly luster.

*2. Dentistry and optometry. Dr. Crisp in this article praises Mr. Prentice for his activity in promoting interest in optometry laws, so that now 27 states of this Union license the practice of optometry. He also quotes further, where in a recent optical gathering Mr. Prentice said: the public will receive the best eye service from practitioners who shall have in the future collegiately qualified in both optometry and medicine.

Until the 19th century dentistry was a part of the practice of medi-

cine. All celebrated surgeons abandoned the dental branch of their work, and this gave rise to a class of persons who without theoretic knowledge and qualification practiced dentistry with neither principle nor system. As a result of this, some few doctors interested themselves in the systematic training of dentists. In 1840 a charter was obtained for the founding in Baltimore, Maryland, of the first dental college in the world.

Dr. Crisp's idea is that optometry is just as completely separated from medicine as dentistry is, and in the future there will be established special schools for thorough drilling and teaching of optometry.

*3. Optic atrophy. Equal parts of olive oil and lanoline had been injected on two occasions for the removal of a wrinkle or frown from between the eyes, the first injection producing no unusual effects. The patient was unable to leave the doctor's office for four hours after the second injection on account of the severe reaction. The loss of vision occurred five days after the injection, and from that time blindness has been complete. When the patient presented himself to Dr. Fisher, optic atrophy of the affected eye was complete. It is supposed that the injected material found its way into the orbital cavity through some dehiscence or abnormality and pressed against the optic nerve.

THE OPHTHALMIC REVIEW. Jan. 1913.

*1. Subjective color sensations in retinitis pigmentosa, by A. F. FERGUS.

2. A case of glaucoma, by E. E. HENDERSON.

*1. Color sensations in retinitis pigmentosa. The patient has been under the author's observation for fully 20 years. She has been unable to see to read or write for 12 years. Her parents are first cousins. Of a family of eleven, one brother also suffers from retinitis pigmentosa. At the time of writing, the patient's vision was reduced to a very faint perception of light and shade.

For the last three months the patient has had sensations of various colored clouds which have been distinct and have lasted for some time to be replaced by other colors in turn.

OPHTHOLMOLOGY. Jan. 1913.

1. Observations concerning foreign bodies within the eye or orbit, by W. K. ROGERS.

*2. The operative treatment of keratokonus, by PROF. DR. GRUNERT.

3. Heredity in relation to the eye, by GEO. F. LIBBY.

(NOTE.—Dr. Geo. F. Libby presented this paper as a thesis for his degree of Doctor of Ophthalmology. He has collected the various anamolous and pathological conditions of the eye due to heredity.)

4. Roentgenography of foreign bodies in the eyeball, by G. H. STOVER.

5. Colored glasses for hunting and as a protection against snow and other light, by Sanitatrat DR. FRITZ SCHANTZ.

6. Visual symptoms of accessory sinus disease, by PERCY FRIEDENBERG.

7. The new antiglaucomatous operations, by DR. L. DOE.

*2. Keratokonus. In the correction of keratokonus Prof. Dr. Grunert has devised an operation which he has used for the past 5 years and which has given him success in every case.

The operation is performed in 3 stages. In the first stage he uses the galvanocautery to produce, in the superior quadrant, a burn in the shape of an equilateral triangle having its base 2 to 3 mm. long at the limbus. The apex is extended as a hair line to the top of the cone. Two days later the chief operation is done under narcosis. The slough is scraped off and with a Graefe knife the cornea is slit along the middle of the burned line from the center to the limbus. A conjunctival bridge, or flap, 5 to 7 mm. wide, is removed, preferably from the external scleral conjunctiva, and deposited over the site of operation. This flap is stretched taut and sutured to the cornea. Four weeks later the conjunctival flap is retransplanted or, if atrophied, removed.

THE OPHTHALMOSCOPE. Jan. 1913.

1. Brawny scleritis, by F. H. VERHOEFF.

2. A year's record of cataract extraction, by CHAS. KILLICK.

3. A case of soamin poisoning resulting in optic atrophy, by R. H. ELLIOT.

4. Lengthening a rectus tendon in squint operations, by N. B. HARMAN.

BOOK REVIEWS.

PHOTOGRAPHIC ATLAS OF RADIOGRAPHY OF THE MASTOID REGION AND OF THE NASAL ACCESSORY SINUSES. By JOSEPH C. BECK, Clinical Professor of Oto-Laryngology, College of Physicians and Surgeons, University of Illinois; Attending Oto-Laryngologist to the Cook County Hospital; Oto-Laryngologist to the North Chicago Hospital; Professor of Oto-Laryngology, Chicago Eye, Ear, Nose and Throat College. The Laryngoscope Company, Saint Louis. 1911.

This is a collection of about thirty well executed photographs ($9\frac{1}{2}$ in. x $7\frac{1}{2}$ in.) from x-ray negatives of the skull and head, divided as follows: (1) Four skiagraphs of skull; (2) twelve photos of the normal head, and (3) ten, of diseased conditions of the cavities under consideration. Besides these are eight stereoscopic pictures explaining the exact positions for producing these pictures.

The execution of this collection in all departments is exceptional—the author, Dr. Beck, has shown keen judgment in his selection of the particular photographs to represent the characteristics most needed to interpret a radiograph. His radiologist, Dr. Francis C. Turley, and photographer, Mr. Willis, have done exceedingly good work in their department of this production—and the publisher is not a wit behind the rest in producing a very convenient and exceptionally durable, half morocco bound, loose leaf atlas. The plan which Dr. Beck has used in selecting these photos is most practical, *i. e.*, he has commenced with the radiographs of the common skull by the comparison of which with such skull a student obtains a conception of the lights, shades or shadows caused by certain thicknesses or cavities—he then proceeds from these plainer and better known objects gradually through normal conditions to the abnormal or diseases of the sinuses.

These photos are preceded by a short amount of text giving clearly the method of interpretation of radiographs, radiographic technique, etc.

Each plate is accompanied by extra sheet containing exact tracings of lines and shadows upon which each has its name or indication printed.

From a quite close examination nothing but the highest commendation can be made of this collection. As we believe it is one of the earliest and we know one of the best selected collections of radiograms of this portion of anatomy and pathology, it is a very desirable if not an absolutely necessary book for all specialists desiring to be able to understand the productions of radiologists and all who are workers in the x-ray field themselves.

HAY FEVER AND PAROXYSMAL SNEEZING. (VASOMOTOR RHINITIS.)
By EUGENE S. YONGE, M. D. (Edin.), Physician to the Manchester

Hospital for Consumption and Diseases of the Throat. Author of "A Handbook of the Diseases of the Nose and Throat." With two colored plates. William Wood & Company, Publishers, New York. 1910.

As is quite characteristic of the majority of the English authors, the subject is treated in a most exhaustive manner, commencing with the interesting phase, the history, from which we note that hay fever as a disease entity was first described by Bostock in 1819; although clinical reports of individual cases which, from our present knowledge, may be recognized as such, are occasionally found in medical literature since 1565.

And closes with the practical all important consideration of the treatment, which is discussed under: "(1) Prophylactic methods; (2) methods of treatment during the attack, and (3) methods designed to prevent or lessen the severity of the attack," and includes the collation of every rational method in our literature to the present excepting remedies homœopathically indicated.

Being, we believe, the most complete book on this subject in English, those interested in this department of medicine will find it eminently useful.

FOOD FOR THE INVALID AND CONVALESCENT. By WINIFRED STUART GIBBS, Dietitian for the New York Association for Improving the Condition of the Poor; Teacher of Economic Cookery, Teachers' College, Columbia University; author of "Lessons in the Proper Feeding of the Family." New York: The Macmillan Company. 1912. Price, 75 cents.

This is a form of diet primer for the use of the young or inexperienced housewife, a class which the physician of the present finds greatly outnumbers the experienced. Assisting the practitioner by saving the time not infrequently occupied in giving detailed directions regarding feeding. It is especially adaptable to the more frugal class of the community because it contains a large number of menus of considerable variety which can be produced at very small expense.

THE MECHANISTIC CONCEPTION OF LIFE. By JACQUES LOEB, M. D., PH. D., SC. D., Head of the Department of Experimental Biology, Rockefeller Institute for Medical Research. Cloth. 232 pages. Illustrated. Post paid, \$1.65. The University of Chicago Press, Chicago. 1912.

This interesting and valuable monograph consists of ten biological essays without which no scientific library can be called complete. The titles of the essays fail to reveal many of the book's interesting points, but the double column three and a half page index makes up for this.

The object of the first chapter, from which the book takes its name, is "to discuss the question whether our present knowledge gives us any

hope that ultimately life, *i. e.*, the sum of all life phenomena, can be unequivocally explained in physicochemical terms." "Nothing indicates," he says, "at present that the artificial production of living matter is beyond the possibilities of science." "Today we are able to state that the problem of the activation of the egg is for the most part reduced to physicochemical terms. . . . The spermatozoon," he concludes, "causes the development by accelerating the oxidizations in the egg."

Probably the most interesting feature in the book is its endorsement of McClung's solution of the problem of sex determination—that this depends upon the number of chromosomes in the cell nucleus of the fertilized egg. If this is accepted—and the authority is high—all hope is lost of predetermining and predicting the sex of offspring. The spermatozoon carries chemical substances into the egg which form the stimulus for its development.

In the consideration of heredity Loeb's conception of life teaches that the main task here left for science to accomplish is the determination of the chemical substances in the chromosomes which are responsible for the hereditary transmission of a quality, and the determination of the mechanism by which these substances give rise to the hereditary character. For this the ground has already been broken.

Loeb recognizes that his conception of life is not complete unless it includes a physicochemical explanation of psychic phenomena. While recognizing how far we are from that goal today he claims that a limited group of animal reactions can be explained unequivocally upon such a basis.

In the chapter (lecture) upon the process of fertilization we find: "While we are able to produce the process of fertilization by a treatment of the unfertilized egg with certain salts in certain concentrations, we can not hope to bring about the transmission of the hereditary qualities of the male by any such treatment. Hence the inference must be that the transmission of the hereditary qualities of the male and the agency that causes the process of fertilization are not necessarily one and the same thing."

Space forbids an adequate presentation of the whole of this book. Opportunity may be taken next month of presenting editorially some thoughts suggested by the mechanistic attitude.

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No. 4

EDITORIAL.

THE MECHANISTIC CONCEPTION OF LIFE.

THE book with this title which we reviewed last month illustrates two great advances in civilization, one of which is charity for those holding an opposite view.

Attempting to analyse life from a purely physicochemical viewpoint—to make the facts of psychology accessible to analysis by means of physical chemistry—Dr. Loeb defines life as the sum of all life phenomena. Would it not be sounder to say that we can know life only through its phenomena, we can know only its phenomena? This is a distinction with a difference.

To him and to those of a materialistic, mechanistic, mind a life phenomenon is inexplicable if there is no physicochemical explanation for it. "Nobody," says he, "doubts that the durable chemical elements are only the product of blind forces." At the risk of being "nobody," along with a few conscientious seekers for scientific as well as other truth, the writer not only doubts but denies such an assertion.

Acknowledging that a mechanistic conception of life is not complete unless it includes a physicochemical explanation of psychic phenomena, Dr. Loeb offers experiments in heliotropism as primary steps in the physicochemical explanation of the will; to us they involve only reflex automatism. In fairness it must be remembered, however, that the doctor is discussing the question "whether our present knowledge gives us any hope that ultimately life can be unequivocally explained in physicochemical terms." He can not, and does not pretend to, produce the egg, nor life without the egg. Artificial parthenogenesis has natural parthenogenesis as its prototype.

The mechanists are as sincere, if not more so, than the vitalists. The writer, frankly a vitalist, welcomes the researches of the scientific

mechanists, but insists that *the physicochemical phenomena are manifestations, concomitants, of life, but are not life itself and are not the cause of life.*

Man is a spirit, his body is material—natural. The spiritual and the natural planes of existence are “discrete”—parallel. All the phenomena of life are but the sensual manifestations of effects of spiritual causes, the action of some will without which action they could not have been manifested. There must be a correspondence between every phenomenon which is natural and its parent will.

Life is spiritual, like creation, inflowing from the spiritual into the natural plane and manifesting itself as natural forces. Symbolizing such a conception as a stalactite, the truths of the natural world (established by scientists, and maybe best by mechanists) may be likened to the stalagmite. The union of the stalactite and the stalagmite forms the complete pillar.

“The time must come when no one will be regarded as a philosopher or a scientist (however familiar he may be with the objects of nature) or eminent as an experimentalist unless he looks beyond physical to spiritual causes and does what in him lies to put his fingers upon the chords of Divine harmony which connect everything and event in nature with their author.”*

May we not, “with malice toward none, with charity for all”—“in certis unitas, in dubiis libertas, in omnibus caritas”—sympathize with and learn from the earnest scientific mechanists without losing the vitalist’s point of view?

“As we advance in knowledge we outline further our ignorance.” Why, how, does oxygen oxidize the ovum or any other substance? Granted that the spermatozoon “activates” the egg by oxidization; the oxidization is one of the phenomena of life, but this does not necessarily mean that life is essentially or merely oxidization.

Thought is *not* a secretion, a creation by the nerve cell—neither is emotion. The physicochemical tests which led some mechanists to such an inference showed only one or more of the life phenomena incidental to the man working with that part of his body.

The mechanists grant that life and most of its problems are inexplicable as yet; unless their heredity prevent, may they not keep open mind to the possibility of an eventual vitalistic explanation? And this without giving up their scientific researches?

*Hon. John Bigelow.

CHICAGO IN JULY.

As will be seen by President Shepard's circular letter on another page, the coming meeting of the American Homœopathic Ophthalmological, Otological and Laryngological Society will be held in Chicago on July 2d, 3d and 4th, preceding the Denver meeting of the American Institute of Homœopathy, which will run from the 6th to the 12th of that month.

Those who attended our last Chicago meeting will testify to the various pleasures of that city as a meeting place, and the rest of the members are assured of a good time, scientifically and socially when—we do not say if—they go.

To those in authority we suggest consideration of the kind of program adopted by the New York State Homœopathic Medical Society at its late meeting.

Members are reminded to send the titles of their proposed papers to Secretary Myers without further delay; to write and present a paper if promised, and to hand the MS. at once to the secretary; respect for the society calls for papers when read to be in condition for publication.

Last year the secretary's good nature induced him to grant permission for more than one paper to be taken home for rewriting; as a result the Transactions and this journal had to get along without those papers (except one, which was later forwarded to the editor).

It is hoped that discussion will be the prominent and characteristic feature of our coming meeting; it would be worth while to have fewer papers, if necessary, in order to secure this. Also that the members immediately upon receiving the program prepare themselves to discuss one or more of the papers adequately.

 CORRECTION.

Dr. Norton's discussion of glaucoma in the March issue:—On page 113 line 14 from bottom, insert before "you:" "for—although," and in the next line, after "moment" insert: "—the diagnosis is perfectly plain, and you will get very different opinions as to treatment from different oculists."

On page 114, 9th and 13th lines from the top, the word "mydriatics" should be *myotics*.

Dr. Norton asks for these corrections because he would not like to have anyone infer that he treated glaucoma with mydriatics.

NEW ETIOLOGIC FACTOR IN TIC DOULOUREUX.*

A. WORRALL PALMER, M. D.,

New York.

WHEN considering the cause of headaches the practitioner thinks of the digestive tract, generative organs, eye strain and, possibly, renal disorder, but seldom does the respiratory tract enter his mind when in search of an etiological factor for such condition unless it may be the frontal pains following an attack of *la grippe*. Such headache, as is usually understood, is caused by the pressure of retained inflammatory secretion. Headaches may be caused by circulatory obstruction, as for example those accompanying markedly hypertrophied adenoids and tonsils or nasal occlusion.

The intranasal pressure headache has long been recognized by most specialists; the nasal walls being intended for conveyance of a soft, elastic nonirritating substance as a column of air, resent the unnatural constant pressure of a solid substance as a hyperplastic turbinal, spur, etc., therefore such constant pressure on the terminal filaments is demonstrated as neuralgia in intimately communicating nerves.

Another nasal condition productive of pain is the exact opposite of intrasinus pressure—negative pressure in accessory cells or vacuum headache—in such cases the oxygen of the imprisoned air is absorbed by the tissues, the negative air pressure in reality sucking the blood into the cavity thereby irritating the sensory nerves. Our attention is usually called to this headache by the persistent and early appearing fatigue of the eyes on reading notwithstanding the greatest care and skill in the selection of lenses, making continuous use of the eyes impossible—there is an almost constant dull uncomfortable feeling. In examining we employ the Ewing sign, which consists of a “feeling of soreness and tenderness as on pressure upon a boil” when moderately pressing in the inner upper angle of orbit over the trochlea—care must be exerted that too forcible or firm pressure be not made unless the nasal and ethmoidal branches of the 5th or trigeminal will be reached, also if the finger slips upward the supraorbital nerve may be touched. The pathology is the occlusion of the cell outlets by the thickened mucous membrane, the reduction of which relieves the headache.

*Written especially for this JOURNAL.

The recently recognized nasal cause of headaches and neuralgias to which I desire to call your attention is dependent on the very close proximity of the cavernous sinus, with its contained nerve trunks, to the sphenoid sinus and posterior ethmoid cells. To properly under-

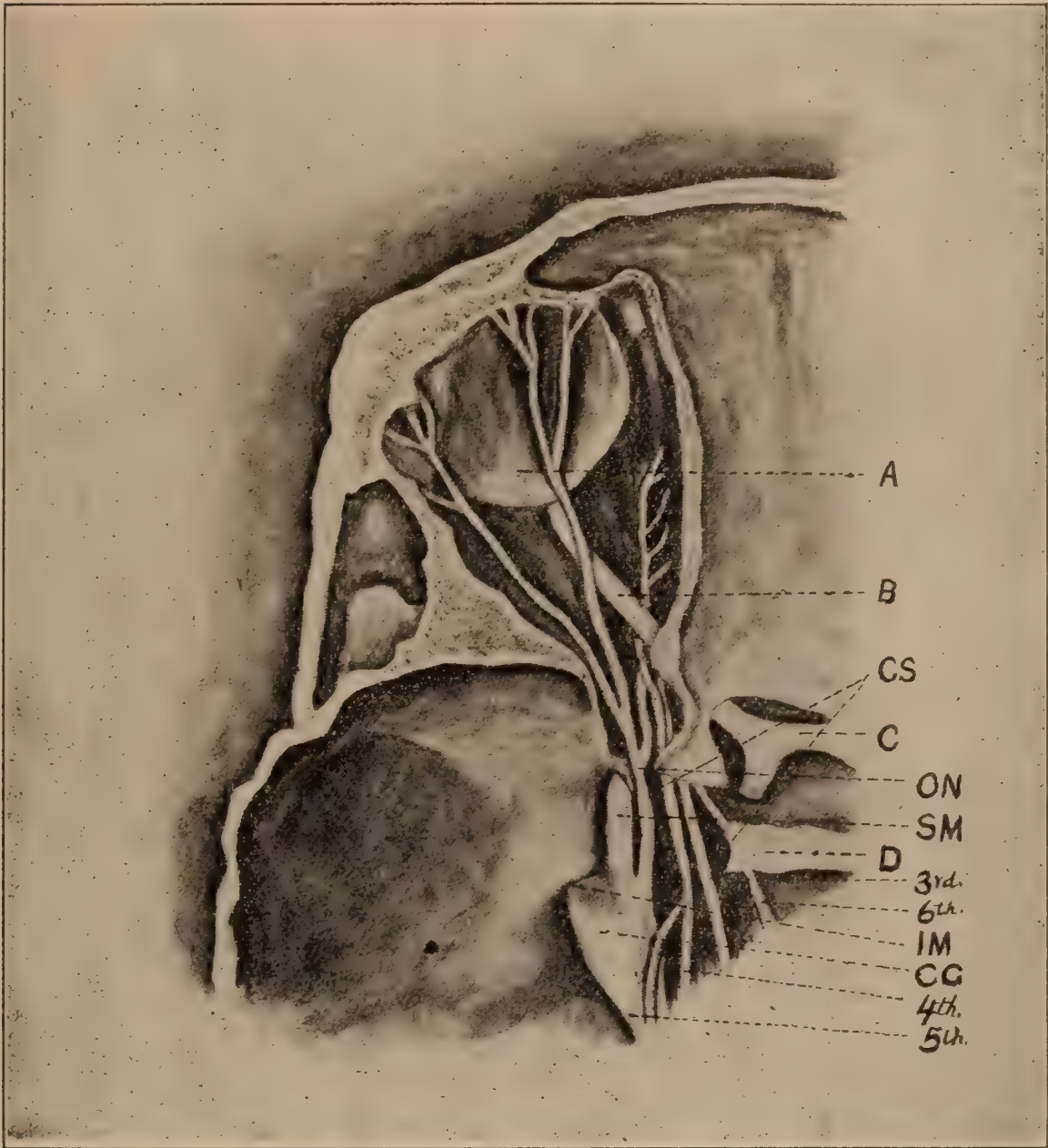


FIG. 1.—Cerebral floor—left anterior quarter.

stand I trust you will pardon a brief reference to the old dry anatomy—personally have always found that a few illustrations or drawings, even though possibly crude, will elucidate a subject better than an exhaustive word picture.

Illustration I is the left anterior quarter of the cerebral floor (from

Deaver's Anatomy)—we note: (a) eyeball; (b) optic nerve; (c) chiasm; (d) posterior clinoid process, this with the sella-turcica forming the roof of the sphenoid sinus; (c. s.) cavernous sinus, forming the lateral wall of the sphenoid which contains (3rd) the 3rd or motor oculi, (4th) the 4th or trochlear, (5th) the 5th or trigeminus with (G G) the Gasserian ganglion at its decussation into its three branches: (o. n.) the ophthalmic, (s. m.) the superior maxillary and (i. m.) the inferior maxillary.

Our idea of relation and proximity may be enhanced by illustration II, a cross section of the cavernous sinus; in this drawing the nerves,

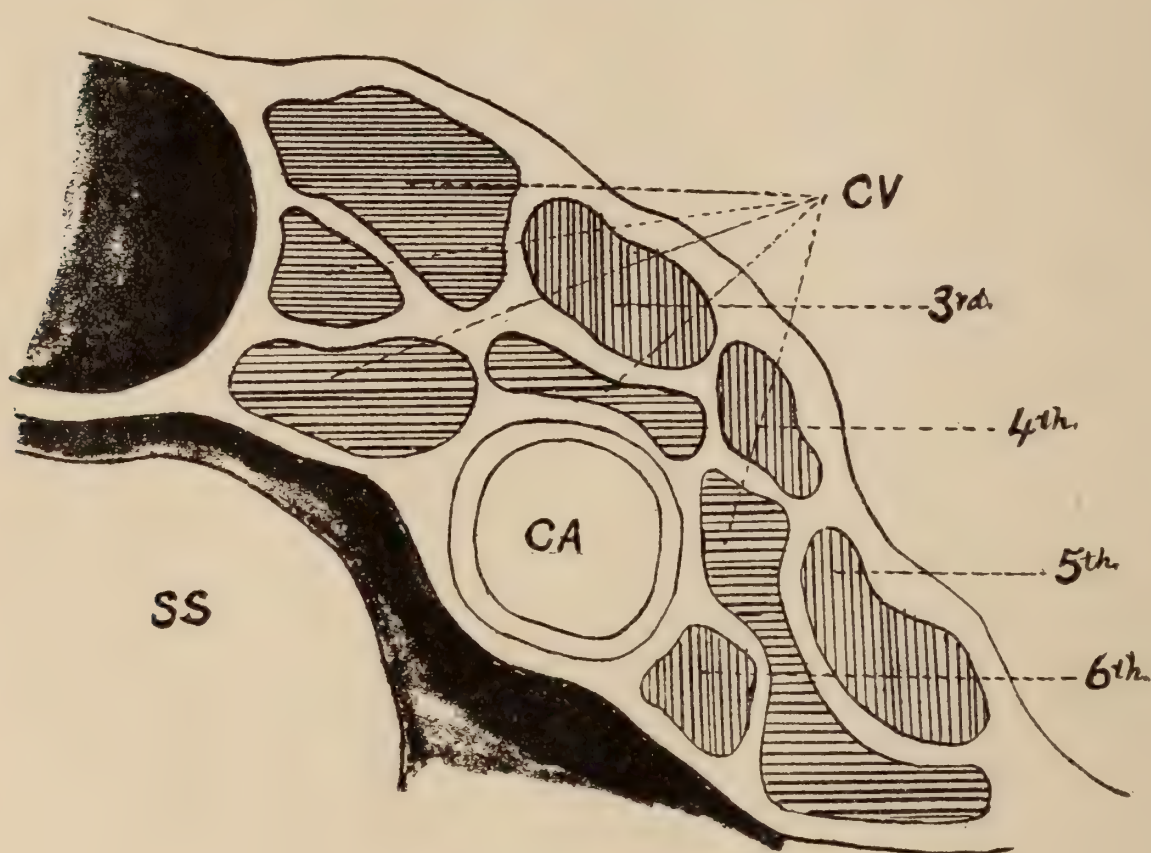


FIG. 2.—Cavernous sinus—cross section.

etc., are indicated by the same signs. But in addition to the former is shown the carotid artery (c. a.), the venous sinuses themselves (v. s.), the approximate side of the sphenoidal sinus (s. s.), and the pituitary body (p. b.):

The vidian nerve, the connecting branch between Meckel's and the tympanic ganglia, traverses a canal very close to the lower side of the sphenoid and in a few anomalous cases this nerve has been found even passing through the sinus.

On account of the optic nerve—the chiasm—lying directly on the roof of the sphenoid, ophthalmologists find not infrequently that a neuritis of such nerve trunk and retinitis may be caused by disease of the sphenoid and posterior ethmoidal cells.

In reasoning or investigating along similar lines Dr. Sluder, a rhinologist, discovered and demonstrated that in like manner sphenoid and ethmoid disease may affect the nerve fibers of the ophthalmic or first and the superior maxillary or second branch of the 5th cranial nerve—the trifacial or trigeminal—which through the intercommunication of their sensory fibers in the Gasserian ganglion are capable of causing reflex pains in any or all of the terminal filaments of the trigeminal, which terminals form almost the total sensory nerves of the face and cranium; the pain in those nerve endings is what is commonly denominated *tic douloureux*. Furthermore we need recollect that sphenoiditis may also inflame the vidian nerve, thereby causing pain either in the ear on the one hand or the superior maxillary nerve on the upper jaw.

As the writer's attention was only very recently called to this subject and as it is not natural for a neuralgia sufferer to apply to a rhinologist for relief, his individual opportunity for observation is rather restricted—but the benefit obtained in two of the six cases examined materially strengthens my confidence in the possibilities of relief in certain selected cases when this subject is understood by rhinologists more universally. In the remaining four cases no signs of sphenoiditis were present.

The treatment employed in both cases was cleansing of the sphenoid followed by the injection of argyrol. Naturally both middle turbinals were totally removed in one case, in order to obtain access to the sphenoid; in the other case the existence of an old ozena allowed the necessary catheterization. Judging from previously reported cases, those of the writer were probably quite simple, because such conditions have usually required operation on the sphenoid sinus itself.

162 W. 54th Street.

HEREDITARY CATARACT—FIVE CASES.*

JAMES A. CAMPBELL, M. D.,

St. Louis, Mo.

I HAVE to report five cases of hereditary cataract operated on, occurring in three persons, with an interesting family history involving seven or more of the same family, all developing cataract, between the ages of twenty-five and twenty-nine, in eyes previously normal.

CASE I. Henry R., age 30, came to me in 1902 saying that a year and a half before that time he first noticed that the vision of the left eye was affected; it had been growing worse by degrees. There had not been the least pain or impaired sight in either eye up to that time. He was a splendid specimen of physical man, six feet four inches tall and the picture of health.

Vision of the right eye was 15/10. Left eye could count fingers at four feet.

Dilatation of the pupils showed soft cataract with capsular striations in left eye. Inflammatory symptoms were absent. Tension normal. The right eye being normal in every way he was able to keep up his employment (outside work) without trouble. The situation was explained to him and he was advised to defer operation as long as he could go on with his work. This he did until November, 1904, when examination showed the right lens involved, vision reduced to 15/20, while the left eye had only light perception the lens showing radiating capsule striations.

The left eye was operated on without iridectomy, the lens being delivered without accident or complication. After due time some secondary capsular opacities were divided, and with $+ 12$. s. \odot 1.50 c. ax. 150° V. = 15/12; with $+ 14$. s. \odot $+ 1.50$ c. ax. 150° , J. 1 at 13 inches.

The right lens became more and more involved, by degrees, until in April, 1905, it too was opaque, with spotted white points in the capsule. This eye was operated on in the same way, with no complications. With $+ 11$. s. \odot $+ 2.50$ c. ax. 30° V. = 15/20 one month after

*Written for this JOURNAL.

the operation. A few months later the posterior capsule became cloudy. This was needled, and with $+ 12$ s. $\odot + 1$ c. ax. 150° , V. = 15/10; with $+ 16$ s. $\odot + 1$ c. ax. 150° , J. 1 at ten inches. His vision has remained about the same ever since.

His father had cataract in both eyes when a young man under thirty, and had been operated on for them. He had eight children and every other one developed cataract in previously normal eyes, between the ages of twenty-five and twenty-nine. The father's sister was afflicted in a like manner, and she had a cataractous daughter, with other complications, commencing about the same age. I shall comment on this case later.

CASE 2. In February, 1909, Charles R., age 26, a brother of case one, also six feet five inches tall and in good health, came to me reporting: never had any trouble with his eyes until about six months before, when vision of left eye began to "grow dim." No pain or inflammation had ever been present or any history or injury.

Examination: R. V. = 15/70; with $+ 1.87$ s. 15/50. L. V. = 15/200. Euphthalmine dilatation showed both lenses involved. There were punctated white spots in anterior capsule with general steamy cloudiness of the lens. The upward dilatation of right pupil showed some possible adhesion. He was not ready for operation at the time. In June R. V. 15/100; L. V. 15/200. In August R. and L. was 15/300.

September 6th, the right eye was operated on. I found some difficulty in delivering the lens because of a small adhesion in the upper segment, but it was finally accomplished with a slight loss of vitreous. The pupil eventually cleared up. With $+ 11$ s. V. = 15/15. With $+ 16$ s. he could read J. 3.

The left eye was operated on one year later with no complications; with $+ 10$ s. $\odot + 2.25$ c. ax. 5° , V. 15/15. With $+ 14$ s. $\odot + 2.25$ c. ax. 5° , J. 2 at 12 inches.

CASE 3. In 1905 Mrs. Jno. F., age 27, sister of the above men, came to me for examination. One year and a half before that her left eye had been operated on for cataract, with an upward section and a large iridectomy. There was a cystoid cicatrix with iris incarceration which was irritable and inflamed at times. With $+ 13$ s. R. V. = 15/30. There were capsular opacities. Vision in the left eye was light perception. Dilating the pupil revealed the whole lens cloudy opaque, a soft cataract.

I operated on this left eye and delivered the lens without accident or complication, having a clear round pupil.

One month afterward examination showed some capsular tags, and with $+ 9$. s. $\ominus + 2.25$ c. ax. 15° V. = 15/50. She will return later for a needling operation.

The father, Christ. R., age 72, came to me for examination. When thirty he had both eyes operated on for cataract, which had developed two or three years before. In both eyes there had been an upward iridectomy. The pupils were small, drawn upward and dimmed by dense spider-web like lines. There were numerous corneal cicatricial opacities in both eyes. R. V. with $+ 8$. s. was 15/100. In the left eye there was merely light perception. I cut through the pupillary obstructions in the right eye with a Ziegler knife, improving his vision to 15/50 with $+ 8$. s. $\ominus + 1$. c. ax. 60° .

In 1911 I examined a cousin of the above group, a woman about 40. She was paralyzed and had been bed ridden for a number of years. In her girlhood days she had sore eyes, and had the right eye removed after ulcers and staphyloma. The left eye had been blind for a number of years. She was brought to me for operation because of the successful results on her cousins' eyes.

Examination of the left eye showed a marked and constant nystagmus, a chronic conjunctivitis, with an atrophied nuclear cataract. There was no perception of light.

No operation or encouragement could be offered in this pitiable case.

Here then we have a series of cataracts, undoubtedly hereditary, all developing between the age of twenty-five and twenty-nine. Since the father and his sister were both victims of the same disease, its hereditary origin must have been transmitted to them by their ancestors farther back; but owing to the fact that they emigrated to this country when young they had very little ancestral history to impart, so it is impossible to say how far back this interesting tale of mishaps extended or when or how it began.

Similar cases have been reported from time to time but they are comparatively rare, as reference to authorities will show. It is easy to understand how some prenatal influence, some constitutional taint or injury, might interfere with the fetal development of the eye or its lens and thus explain congenital cataract, but the peculiarity of these cases, when the father and every *other* one of his eight children developed cataract in both eyes at a similar time of life in eyes previously normal, must open up a line of thought and discussion on heredity and eugenics clearly out of place in this paper, although

Mendel's laws and suggestions must command our attention and add to our wonder.

To me the value of a cataract operation is not so much in the *method* employed as in the *results obtained*. Thus Major Smith's reports of his extraordinary number of operations is to me most unsatisfying, because very much more stress is placed on method and numbers than on results, which should be the only excusable reason for any operation. It is questionable whether any improvement has been made on Herman Knapp's carefully listed and fully reported 5,000 cases of cataract, most of them done in the good old fashioned classical way.

Mermod-Jaccard Building.

"When we endeavor to pass **from the phenomena of physics to those of thought** we meet a problem which transcends any conceivable expression of the powers we now possess. We may think of the subject again and again—it eludes all intellectual presentation—we stand, at length, face to face with the incomprehensible."—*Prof. Tyndall*.

Snoring generally means obstructed respiration.

Spots before the eyes may indicate eye-strain or disease within the eye. They call for examination of the eye.

The official abbreviation of gramme, according to the French Department of Education and the International Congress of Weights and Measures, is g. (not gm.). Contributors please take notice. We urge that the French spelling be retained because gram and grain—as written by very many people—may readily be confused. As a safeguard it is advisable that we *form the habit* of writing this word retaining the French spelling.

EPIDEMIC SORE THROAT IN BOSTON.*

N. H. HOUGHTON, M. D.,

Boston, Mass.

DURING the second week in May, 1911, there appeared a widespread epidemic of tonsillitis in certain parts of the cities of Boston and Cambridge and in the town of Brookline, which was particularly noticeable for its severity and the variety and seriousness of its complications. The disease differed from ordinary tonsillitis in many respects and at once showed characteristic marks of a severe infection; therefore the term "septic sore throat" is a more proper name to be given to this condition. Nearly all of the cases appeared in well-to-do families living in the best residential parts of the above cities with the most favorable hygienic surroundings.

Various theories were advanced at the time of the outbreak to account for the unusual prevalence of the infection, such as the unusual dryness of the season, dust, oil sprinkled streets, etc., but there is no evidence that such conditions existed any more in the affected districts than in the neighboring towns where no such infection was present.

Clearly then there was some definite source of infection in these districts which was absent in others. It also should be recorded that the epidemic prevailed in Hudson, Marlboro and Southboro while no abnormal conditions showed in the rest of Massachusetts.

The sudden outbreak of the disease in these districts, practically on the same few days, would preclude contagion from person to person as a possible cause.

Careful investigations by boards of health of these localities combined with the work of the State Board, and painstaking examinations by bacteriologists, have finally and conclusively traced the infection to one milk supply which distributed milk in all these districts. And right here it is only just to say that this particular milk supply is one of the best in the whole state; for twenty-eight years this milk has been furnished to Boston without any ill arising. A veterinarian is employed to inspect the cattle at least four times a year and to report on the sanitary conditions, while a bacterial analysis is made four to

*Written for this JOURNAL.

six times a month by a professor in the Massachusetts Institute of Technology. But when about 85 per cent. in round numbers of the cases reported and investigated were found to be using this particular milk supply, it is very conclusive evidence that something was wrong with the milk.

As there were several cases of tonsillitis on the farm where all the milk is handled, it is presumed that in this way the milk became infected.

The clinical history of this disease is very interesting. It began in all cases as a primary infection of the pharynx and tonsils with the characteristic inflammation, painful deglutition, nausea, backache, prostration and other symptoms common to a streptococcus angina. The white follicular spots in many cases coalesced into large grayish patches of pseudomembrane which strongly resembled that of diphtheria. The most noticeable secondary complication was the enlargement of the glands of the neck, which often resulted in abscesses and required surgical interference. Other complications were peritonsillar abscesses, laryngitis, rheumatism, erysipelas, peritonitis and pneumonia.

Eight deaths from peritonitis were reported in Cambridge alone. The disease was more severe in adults than in children and most of the deaths were in adults over fifty-five years of age. The organism most commonly found was the streptococcus and associated with it the staphylococcus and pneumococcus.

Of my own cases there were two very severe ones of erysipelas of the face and head. Another patient had laryngitis, a large abscess of the neck and an acute enlargement of the prostate gland.

220 Clarendon Street.

Septic Sore Throat. There have recently appeared in Brooklyn several cases of severe sore throat which strongly suggest the possibility that they may be "septic sore throat" which was epidemic in Boston and Chicago in 1911, and in Baltimore in 1912.

The symptoms are: Sudden onset with chill, irregular fever sometimes surprisingly high and often persistent; diffuse inflammation of the tonsils and fauces; enlargement of the cervical glands in some cases, in others, otitis media, erysipelas, also septicemia, septic arthritis, peritonitis and acute appendicitis. In some there is a foul diphtheritic exudate.—*L. I. Med. J.*, Feb., 1913.

EARLY PUNCTURE IN ACUTE SUPPURATIVE OTITIS.*

RALPH I. LLOYD, M. D., O. ET A. CHIR.,

Brooklyn, New York.

ALL are familiar with the usual drop in temperature and relief of pain after spontaneous rupture of the tympanum in suppurative otitis media. It was the old custom to wait until pus had formed before incising an abscess; nowadays the process is frequently aborted by early incision. Similar reasoning should apply to ear cases. Early incision of the drum will shorten the attack, relieve the pain and temperature and avoid complications. Reports of numerous cases show that in cases thus treated there are fewer complications than in the group left to nature. Early puncture will frequently change the course of a case. Temperature of 105° , severe headache, vertigo and vomiting have in cases of severe acute otitis been relieved by this procedure. The relief is usually prompt and marked.

Brilliant results like this do not always follow. If any procedure always produced such results the millennium would be at hand. In childhood, the puncture may establish the discharge of pus and relieve the pain in large part, but the temperature may stay up and symptoms suggesting meningitis or mastoiditis remain. In this type of case, bacterins have accomplished some wonderful results.

In another group of cases the opening closes almost immediately and refuses to stay open even after repetition. This may indicate that the mastoid is involved or that the infection has reached even deeper structures. In most of such cases, after a time, spontaneous opening in Shrapnell's membrane or in the anterior inferior quadrant will occur. Perhaps the bands which subdivide the middle ear into a number of pockets have something to do with this unwillingness to accept your selection of a route for discharge.

The classical indication for puncture is bulging of the membrane. In children anyone may be fooled. An apparently normal membrane, moderate thickening excepted, may in a few hours rupture and discharge profusely. Sometimes in these little folk the drum may appear very dark, almost bluish; puncture in this type releases a serum, some-

*Read before the Kings County (N. Y.) Homœopathic Medical Society.

times smoky, sometimes clear with a few flocculi but becoming purulent in a few hours.

I believe we should take a rather radical attitude in acute otitis of children. If we find the dark, bluish drum or generally injected we should puncture. Another class of cases which requires the same style of procedure is the growling ear of measles—a little earache night after night with moderate temperature. These cases will keep it up for a week before they rupture and can be speedily brought to a finish.

A case comes to mind of a child operated for mastoiditis. The second day after operation the temperature rose to 103° , and there was severe pain in the other ear. Immediate puncture reduced the temperature to normal, relieved the pain and our apprehension of evils yet to come.

Recently a child of one year came into Cumberland Street Hospital with a temperature of 106° after several days of illness. Within an hour or two the drum ruptured spontaneously and the next morning the temperature was 100° . Three or four days later, the temperature suddenly rose to 105.5° with pain in the other ear. This was punctured and the next morning the temperature was 100° . The relief in each instance was prompt but how much less suffering there was with the second ear.

450 Ninth Street.

The healing of a mastoid wound is often accelerated by lengthening the intervals between dressings, allowing Nature to do her part is repaid with minimal disturbance.—*A. J. of S.*

Persistence of suppuration after incision of a furuncle or abscess of the auditory canal or auricle indicates the development of a localized chondritis.—*A. J. of S.*

Chronic suppuration in the middle ear may be entirely due to an adhesion near the floor of the tympanum and the internal wall forming a pocket in which pus may lodge.—*A. J. of S.*

Repeated aspiration of an ear discharge, the syringe tip or otoscope snugly fitting the external canal, greatly accelerates the cure of an otitis media.—*A. J. of S.*

Before terminating a mastoid operation scrape clean the exposed bone surface. The wound will granulate more quickly.—*A. J. of S.*

A "positive" blood culture in a case of otitic or mastoid disease is pathognomonic of sinus involvement and an absolute indication to tie off the internal jugular vein.—*A. J. of S.*

HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

DEPARTMENT EDITOR, PHILLIP RICE, M. D.,

San Francisco, Cal.

Homœopathic Remedies in the Treatment of Mastoiditis.

E. H. LINNELL, M. D., Norwich, Conn.

That remedies administered homœopathically will frequently cure acute mastoiditis, cases that under any other treatment would go on to operation, is abundantly proven by clinical experience.

The remedy which has most often served me is *capsicum* in the sixth decimal attenuation. Next in frequency of application is perhaps *mercurius solubilis* in the same potency.

The former is more applicable to mastoiditis occurring in the course of chronic suppuration of the middle ear; the latter in connection with acute otitis media, especially when the mastoid involvement commences as a periostitis rather than in the antrum. The subjoined cases illustrate the action of these two drugs.

CASE 1. E. B., aged eighteen, consulted me May 14th, 1901. He had been suffering for three weeks with otitis media suppurativa dextra and for three days with acute mastoiditis. There were swelling, pain, redness and tenderness of the mastoid, with prominence and forward displacement of the auricle.

The membrana tympani showed a small perforation, but the discharge stopped coincidentally with the mastoid involvement.

Capsicum 6x was prescribed; within twenty-four hours the patient was entirely free from pain, the swelling and tenderness were much less marked and he made a rapid and uninterrupted recovery.

In addition to the above treatment an ice bag was applied over the mastoid, paracentesis of the drum was made and the ear irrigated with boric acid solution.

CASE 2. Miss S., aged twenty-two. Acute otitis media with beginning involvement of the mastoid. Pain in and behind the mastoid with sensitiveness, but no swelling nor redness. The membrana tympani was red and somewhat distended, especially Schrapnell's membrane; no perforation.

Mercurius solubilis 6x was given. The next day the sensitiveness of the mastoid was gone, the pain was much less and there was but little redness of the m. t. remaining. All pain and inflammation disappeared in the course of a few days.

This case had not progressed as far as the other. If not seen in its incipency, *capsicum* would probably have been indicated.

In 1872 Dr. T. F. Allen called attention to the symptom recorded in the proving of *capsicum*: "On the petrous bone behind the ear, a swelling painful to the touch."

Houghton says in his "Clinical Otology:" "Capsicum would be scarcely thought to have any control over mastoid inflammation were it not that clinical experience has confirmed the physiological indications laid down in the proving." He states that he has found it efficacious when the following symptoms are present: "Pains in and around the ear; acute shooting and pressing with bursting headache; great thirst with chilliness and shivering." Allen adds: "Tearing behind left ear; in concha; pain deeply seated, with every cough as if an ulcer would open. Valuable in chronic suppuration of the middle ear with bursting headache; chilliness, etc.; suppuration of the middle ear with discharge of yellow pus; mastoid disease with great tenderness over petrous bone, threatening to involve the meninges."

The indications for mercurius are not as definite, so far as mastoid symptoms are concerned. A coppery or metallic odor to the discharge, the perspiration, the aggravation at night, and the well known nose and throat symptoms, when occurring in connection with early involvement of the mastoid would call for its administration.

"How can a skeptic be convinced of the efficacy of Hahnemann's principle, S. S. C.?" In my early homœopathic practice I frequently imagined myself in the presence of our irreconcilable opponents and asked myself the above question.—*Leon Brasol, St. Petersburg.*

JOURNAL CLINIC.

There is no free water in the body—it exists in all the tissues and body fluids only in combination (as hydration water) with the various (hydrophylic) colloids present. When any free water appears in the body it is quickly removed by one of the secretory organs (such as the kidney). Conversely it is impossible to get any secretion except as we furnish the secreting organ free water. . . . I have injected intravenously as high as four liters in twenty-four hours. . . . The volume of circulating blood can be more than doubled without appreciable effect. . . . Counting the blood in the body as one-thirteenth the body weight it is safe to inject a liter of fluid for every thirteen kilos of body weight. . . . This is a safe figure if blood, in other words water in combination with a colloid, is injected; only such remains in the blood vessels. When the water is injected “free,” as in a salt solution, this rapidly leaves the blood vessels, and so the amount of this that may be safely injected lies still higher. . . . To allow for diminished elasticity of (sclerosed) blood vessels a slower injection or a less amount at more frequent intervals may advantageously replace the single large injections. . . . No solution is either absorbed or secreted as such, but in every case the water and dissolved substances move independently of each other, at times in the same direction, at others in opposite directions, and usually at entirely different rates. The body cells and fluids in any state associated with an edema have an increased capacity for holding water. . . . A solution “hypertonic” for a normal individual may be “isotonic” for one whose colloids have an increased hydration capacity. . . . Edema is a state in which the normal hydration capacity of the body colloids **is** increased. . . . An abnormal production or accumulation of **acids** is one cause of this state, therefore of edema. . . . All salts decrease the hydration capacity of certain proteins swelling in the presence of an acid. . . . Use of such a fact could and should be made in combatting the increased hydration which in the body we call edema, whether it involves special cells, special organs or the body as a whole.—PROF. MARTIN H. FISCHER, M. D., *Trans. Assn. of Am. Physicians*, 1912.

Glaucoma Relieved by Rectal Injection. Mr. F. C., aged 72 years, goes to his office daily. He has for fifteen years had some albumin and casts in his urine. Unless his carbohydrates are consumed in moderation, he also has sugar. All his superficial arteries are easily palpable and tortuous, and his heart is hypertrophied, especially to the left. The second heart sound is accented. His blood pressure is constantly 190, and rises to 210 mm. of mercury. He has never had a generalized edema.

On July 16, after a day of mental and physical fatigue, he developed pain in his left eye and left temple, noticed that his eye was "blood shot," and that he could not see the outline of objects clearly. The condition continued through the night, the pain being so severe as to keep him awake. The next morning his state had not improved, and his eyesight had fallen off still more. He tolerated his condition throughout this day, and through the succeeding night and day, by which time he declared himself completely blind in the affected eye.

In the middle of the afternoon of July 18 he summoned Dr. Thomas, who found the eye hard (tension +3), pupil dilated to size 5 (Morton scale), conjunctiva very much chemosed, cornea slightly steamy—a typical attack of the so-called "acute inflammatory glaucoma." Instillations of eserine were at once begun and the patient moved to the hospital. The instillations were entirely without effect.

At 9 p. m. a slow injection of the following solution into the rectum was started:

Sodium carbonate (monohydrated, $\text{Na}_2\text{CO}_3\text{H}_2\text{O}$..	4.3 grammes.
Sodium chloride	14.0 grammes.
Distilled water, enough to make	1000 cc.

The patient retained the solution well, and by midnight had taken up the whole liter. The tension in the eye had fallen appreciably an hour after the injection was started and at midnight was normal to the touch. At the same time the subjective symptoms of the patient improved, and he went to sleep. At 4 a. m. 500 cc. more of the above formula were injected and retained. At daybreak the patient was able to recognize gross objects, and through the day his vision became steadily clearer. He remained under observation in the hospital for two days longer. No new symptoms developed, and he was discharged with completely restored vision.—DR. H. G. THOMAS, Oakland, Cal.

Prompt as is the relief of tension with its various associated symptoms in such a case as the above this therapeutic procedure does not in any sense constitute a "cure." In the case just detailed I hold that vascular disease was primarily responsible for a diminished oxygen supply to the eye. For years such a change had led to no appreciable symptoms so far as the eye was concerned, but one day in consequence of unusual muscular and mental fatigue, aided possibly by an "acidosis" incident to his sugar intolerance, the acid accumulation from these sources added to that initially incident to the bad blood supply to the eye, sufficed to so materially increase the hydration capacity of his ocular colloids that they swelled to the point of giving him easily recognized signs and symptoms—a frank edema of the eyeball, a glaucomatous attack. But the reduction of this attack did not change his blood vessel disease, and so it could safely be predicted that in consequence of another period of hard work or dietary indiscretions he would again get eye symptoms.

As a matter of fact, Dr. Thomas reports that after two months of freedom from symptoms the patient tired of his restricted activities and his alkalinized diet and had two more attacks of increased tension though not of a severe type. The first of these was controlled by the same eserine solution which in the initial severe attack had been unable to reduce the tension. In the second of these milder attacks the eserine again proved unavailing, even though a contraction of the pupil resulted. An active administration by mouth of alkali and table salt with water was turned to, and while using this the tension returned to normal.—PROF. MARTIN H. FISCHER, M. D., *Trans. Assn. of Am. Physicians*, 1912, p. 634.

After postnasal adenectomy the pharyngeal tonsils will often take care of themselves.—PROF. J. N. MACKENZIE, Johns Hopkins University.

A large tonsil does not necessarily mean a diseased one, nor a small tonsil a healthy one.

Postnasal adenectomy "is absolutely imperative" in the stooping, thin, and anemic child, undersized with contracted thorax, and deaf, always in the state of general catarrh, whether of nose, ears, or stomach, taking cold with every change of atmosphere, peevish and capricious in temper, tossing about in sleep, with voracious appetite, but easily fatigued. Such a patient may have either a large or a small amount of adenoids; the amount of buccal respiration may be conspicuous or insignificant; the snoring may be habitual or only noticed when fresh cold is contracted.

So says the operator ignorant of what homœopathy can do. Our literature is replete with cures by baryta (carbonica, iodata or muratica), calcarea (iodata or phosphorica) and by antimonium crudum. Try it!

Objective symptoms suggestive of eye strain are: the elevation or depression of an eye brow, vertical or horizontal wrinkles in the forehead and at the external canthi, constant blinking, and holding the head in an unnatural position when trying to see distinctly.

Notification of Venereal Diseases in New York. On February 20, 1912, the Board of Health of New York City adopted the following resolutions:

Whereas, The venereal diseases are infectious, communicable and preventable and constitute a serious menace to the public health, thus properly coming under the charge of the public health authorities; and

Whereas, It is well established that no administrative control of such diseases is possible without a system of notification and registration, associated with provision for the municipal care of patients unable or unwilling to place themselves under proper medical care and to take the precautions necessary to prevent the infection of others; *be it therefore*,

Resolved, First, that on and after May 1, 1912, the superintendents or other officers in charge of all public institutions such as hospitals, dispensaries, clinics, homes, asylums, charitable and correctional institutions, including all institutions which are supported in whole or in part by voluntary contributions, shall be required to report promptly the name, sex, age, nationality, race,, marital state and address of every patient under observation suffering from syphilis in every stage, chancre, or gonorrheal infection of every kind (including gonorrheal arthritis), stating the name, character, stage and duration of the infection, the date and source of contraction of the infection, if obtainable; and,

Second, That all physicians be requested to furnish similar information concerning private patients under their care, excepting that the name and address of the patient need not be reported;

Third, That all information and all reports, in connection with persons suffering from these diseases, shall be regarded as absolutely confidential, and shall not be accessible by the public nor shall such records be deemed public records:

Fourth, That the Department of Health shall provide facilities for the free bacteriological examination of discharge for the diagnosis of gonorrheal infections, and also provide, without charge, vaccines for the treatment of such infections; and,

Fifth, That the Department of Health shall undertake to make, without charge, the Wassermann and the Noguchi tests for the diagnosis of syphilis and examine specimens for spirochaetes;

Sixth, That these diagnostic and therapeutic facilities be extended only when the data required for the registration of the case be furnished by the physician treating the patient; and,

Seventh, That the department provided and distribute circulars of information in relation to these diseases.

CURRENT LITERATURE.

DEPARTMENT EDITORS.

WM. McLEAN, M. D.,
New York City.

FRANK O. NAGLE, M. D.,
Philadelphia, Pa.

ANNALES DES MALADIES DE L'OREILLE, DU LARYNX, DU NEZ ET DU PHARYNX. Dec. 1912.

1. Le bourgirage a demeure dans les rétrécissements cicatriciels de l'esophage. par Jacques.

*2. Le chloroforme en rhinopharyngologie. par P. Blanluet.

3. Trepanation pour angiome de la pie-mère situé au niveau de la fosse de Sylvius gauche et de la moitié inférieure de Rolando. par R. Costan et Bourget.

4. Remarques diagnostiques et thérapeutiques sur un cas de tumeur de l'angle pontocérébelleux. L. Ledouz.

*5. Abscès rétropharyngien opéré; mort subite. par Kowler (Mentone).

6. Paraffinothérapie dans le traitement de l'ozène. par Robert Leroux.

*2. Blanluet's preparation for a serious operation on the pharynx, nose or its sinuses is: disinfect the mouth and teeth; examine carefully the liver as well as the heart and kidneys; diet rich in hydrocarbons for several days, but a light diet in the morning of operation; veronal the preceding evening and morphine before operation. Chloroformed with Ricard's apparatus. Kühn's laryngeal tube is inserted and connected through Lombard's intermediary with the Ricard, then the pharynx is tamponed and the operation performed.

*5. Kowler concludes that the technique should be: (1) light narcosis; (2) place the patient in Rose's position; (3) puncture with a trochar but evacuate only a part of the abscess; (4) then feel the pharynx to ascertain the state of the tumor; (5) do not resort to second puncture, for complete evacuation, until 12 hours later.

THE LARYNGOSCOPE. Dec. 1912.

1. Laryngectomy for cancer. George W. Crile.

*2. The technique of intranasal operations upon the lacrimal apparatus. Sidney Yankauer.

3. Transplantation of a piece of cartilage into the septum to prevent perforation after submucous resection. R. H. Brown.

4. Some considerations in reference to the nasal septum. W. R. Butt.

5. Vincent's angina in children. J. A. Mulholland.

6. Large papilloma of the epiglottis removed by fulguration. Richard H. Johnston.

*7. Relation of diseases of the posterior sinuses to painful conditions of the ear. J. H. Bryan.

8. A case of afebrile sinus thrombosis and cerebellar abscess complicating acute otitis media in an adult. Julius Auerbach.

9. Vincent's angina: its frequency and the importance of its recognition. Reports of two fatal cases. T. H. Halstead.

10. The relation of dietetic errors to disturbances of the upper respiratory tract. E. W. Collins.

11. Special editorial department. The deaf; their education, improvement of conditions, etc. John Dutton Wright.

*2. Five per cent. of the diseases of the lacrimal apparatus are of purely ophthalmic origin, and the remaining 95 per cent. are of nasal. Following the list of the nasal etiologic factors is a very thorough consideration of the minute anatomy of the lacrimal duct. Worthy of note as not previously described and still a surgical landmark is a ridge on the outer nasal wall of the inferior meatus, commencing at the nasal orifice, a continuation of the anterior wall of the canal extending downward and backward to the floor of the naris; also seldom mentioned the so-called valve of Hasner is a prolongation of the mucosa of the anterior canal wall at orifice under turbinal, making it necessary in probing to place the probe behind orifice and draw forward. Toti's and West's operations are mentioned. The author has devised a submucous resection of the inner or nasal wall of the lacrimal canal: (1) nasal mucoperiosteum raised; (2) anterior third inferior turbinal removed; (3) internal wall of duct removed with chisel and specially devised punch, care being taken not to injure membranous canal; (4) membranous canal then incised; (5) finally the different membrane flaps are so replaced that a membranous lacrimal duct covered with the nasal mucoperiosteum results. The leaving of this long membranous canal obviates the passage of nasal mucous into the lacrimal sac which was the principal drawback of the previously devised operation.

*7. The intimate connection of the ear and posterior nasal sinuses

is as follows: The sphenopalatine or Meckel's ganglion lies in the upper part of the sphenomaxillary fossa just under the sphenoid sinus, the lamella of bone separating the fossa and sinus ordinarily being thin. One of the main branches of this ganglion is the vidian which is made by the union of the great superficial and great deep petrosal nerves; it gives off one or more branches to the otic or Arnold's ganglion which in turn supplies the mouth of the Eustachian tube and gives off one or two filaments inoculating with the auricular, temporal and chorda tympani nerves. Therefore a neuritis in the locality of Meckel's ganglion may demonstrate itself as a pain in the ear. Three cases of such earache cured by operation of nasal sinuses are appended.

THE LARYNGOSCOPE, Jan. 1913.

1. The Need of a Standard in Voice Production. W. J. Henderson.
2. The Result of Eighteen Years of Research Work on Voice Production and Analysis. Prof. Wm. Hallock and Dr. Floyd S. Muckey.
3. Standardization of Vocal Training from the Teacher's Standpoint. Mr. and Mrs. H. Howard Brown.
4. Vocal Art Science from the Standpoint of Use and Abuse of the Voice. F. E. Miller.
- *5. Report of a Case of Aphthongia. F. Victor Laurent.
6. Eight Years of Chloroform Anesthesia in Nose and Throat Surgery. Chas. P. Grayson.

*5. In this case the author says this is only the third on record. It is defined by Fluery "as cramps in the territory of the hypoglossi, which set in whenever an attempt to speak was made and which rendered articulate expression extremely difficult or impossible. The cause is great emotional excitement or fright." The present case the cause was a fall some six years previous, the patient striking the head, since which time on attempting to speak the sterno-thyroid and thyro-hyoid supplied by the hypoglossal nerve and the sternohyoid muscle violently vibrated,—the tongue was pulled back in mouth and lower jaw downward and to right, while the patient felt as if throat was being clutched by a hand. Six months' treatment by massage and vocal exercises has almost relieved case.

ANNALES d' OCULISTIQUE, Janvier, 1913.

1. Le glaucome traumatique. Camille Fromaget et Henri Fromaget.
2. Recherches cliniques sur l'emploi du tonometre de Schiötz. A Fourrière.

*3. Note sur un traitement de la k ratite ulc reuse des jeunes chiens. E. Valude.

4. Ulc ration superficielle de la conjonctive bulbaire r v latrice d'une septic mie tuberculeuse. Diagnostic par la culture. V. Morax.

*3. Young dogs with prominent eyes are subject to an obstinate keratitis similar to that in human beings affected with facial paralysis or exophthalmia. Valude sealed the lids (in one eye) of a valuable young bull terrier with Mirault d'Anger's palpebral suture, leaving an opening at each end of the palpebral fissure. The silk sutures were removed in four days. The lids were easily separated, after four or five months, by a snip of the scissors. At the time of operation the entire cornea was infiltrated and bluish, the center more yellow, ulcerated and on the eve of perforation. When the lids were released almost all of the cornea had recovered its transparency, its polish and brilliancy were perfect. There only remained in the center a small white opaque spot, which would have been avoided if the lids had been sealed before the ulcer appeared.

KLINISCHE MONATSBL TTER F R AUGENHEILKUNDE.

Jan. 1913.

1. Ueber Operation des Alterstaeres mit der Lanze. Prof. G. Weill.
2. Ueber die innere scleral Ruptur nebst Bemerkungen ueber den Ring Abscess. Dr. B. St lting.

*3. Zur Kenntniss der secund ren Netzhaut Tuberkulose. Dr. B. Agricola and Dr. O. Thies.

4. Ueber einen Fall von Mitbewegung des Oberlides die auch willk rlich hervorgerufen werden kann. Dr. A. Lutz.

5. Bruchst cke zur geschichte der Brille. Prof. D. R. Greef.

6. Behandlung der Divergence durch ueberkorrigierende Concavglasser. Prof. H. Landolt.

7. Zur Lagebestimmung im Augenhintergrund. Dr. W. Reitsch.

8. Neuritis retrobulbaris mit ach giger Amaurose und schwersten Gehirn Erscheinungen also folge von infecti ser multiple neuritis. Dr. E. Kramer.

9. Thrombose der central Venos und metastatische Ophthalmie. Dr. Adolf Purtscher.

10. Traumatische Lochbildung in der Fovea. Dr. Adolf Purtscher.

*3. Clinical history. A young man otherwise healthy, acquired a tubercular condition of the anterior part of the eyeball—tubercular

iridocystitis. After nine months' treatment with tuberculin the patient developed a severe meningitis which quickly disappeared after enucleation of the tubercular eyeball.

Histologically there was a disseminated tubercular process of the anterior half of the eyeball and numerous miliary tubercles of the retina. The latter condition was in no wise related to the choroid, but through continuity of the tubercular process from the ciliary body to the peripheral retinal vessels at the papilla of the optic nerve there was also present a typical picture of retinitis proliferans developing from a papillary vessel.

The clinical interest of the case was the exceptionally prompt disappearance of the cerebral symptoms after the enucleation. This verifies Uthoff's former teachings.

The pathological origin of tubercular nodules in the retina is very interesting. Schable in 1888 gave the opinion that the cells of retinal tubercular nodules arose from the adventitia cells of the vessels. Perl in his studies of tubercular nodules in the retina claims that they are independent of the retinal vessels. In the present case Agricola found no relationship between the retinal vessels and tubercles, there was nothing present even to suggest as much as endarteritis.

The anatomical finding of a retinitis proliferans of undoubted tubercular origin is the first investigation of the relation between tuberculosis and retinitis proliferans, although Axenfeld and Stock from their clinical experience suspected a possible relationship.

HAHNEMANNIAN MONTHLY, January, 1913.

6. Septal deviations. George W. Mackenzie.
9. Reasons for failure in the treatment of diseases in the respiratory tract. Chas. H. Hubbard.

THE AMERICAN JOURNAL OF OPHTHALMOLOGY. Jan 1913.

*1. A Case of Multiple Double Lipodermoids of the Conjunctiva and Cornea, Accompanied by Intrabulbar and Other Anomalies, by K. L. Stoll, Cincinnati, O.

2. On Certain Ocular Phenomena in Their Relation to the Diagnosis of Intracranial Disease, by N. M. Semple, St. Louis, Mo.

*3. Notes on a Case of Unilateral Buphthalmos, in Which a Positive Wassermann Reaction Was Obtained, by S. H. Brown, Philadelphia, Pa.

*1. *Multiple Double Lipodermoids*—the case presented is that of a woman 33 years old, who had had white growths in her eyes since infancy. These had increased in size, especially since her 16th year. The condition was intolerable on account of long hairs which would grow from the tumor formations and get to such a length as to protrude between the lids. The eyelids were normal with the exception of a notch or intimation of lid coloboma at the junction of the nasal and middle third of the upper lid.

Beneath the conjunctiva of both eyes were the tumors which were diagnosed as lipodermoids. The left eye contained four distinct tumors situated at the lower, outer, and superior portions of the conjunctiva. The right eye contained two tumors.

Both eyes were operated under general anæsthesia and the tumor formations removed. The result was very satisfactory. A very extensive reference to the literature of the subject is given in the paper.

*3. *Unilateral Buphthalmos*—Dr. Brown presents a case of unilateral buphthalmos. The right eye is fairly normal except for a refractive error, while the left eye has pronounced enlargement. The Noguchi-Wassermann test was positive. Dr. Zentmeyer has observed buphthalmos rather frequently in the colored race, and thinks the condition associated with congenital syphilis, and Dr. Schwenk has observed most cases as secondary to interstitial keratitis.

THE JOURNAL OF OPHTHALMOLOGY AND OTO-LARYNGOLOGY.

Jan. 1913.

1. The Significance of Arteriosclerosis in the Fundus Oculi, by Emory Hill, Chicago.

2. The Ozena Problem, by R. N. Parker, Des Moines, Iowa.

ANNALS OF OPHTHALMOLOGY. Jan. 1913.

*1. An Inquiry Into Results of the Established Treatment of Detachment of the Retina, and a New Theory, by D. T. Vail, Cincinnati, Ohio.

2. A Simple Method and Equipment for Quickly and Accurately Determining Lenses to Correct Astigmatism, by D. E. Sulzer, Paris.

*. A Neurotic Case of Keratitis Punctata Superficialis, by W. L. Phillips, Buffalo.

4. Syphilitic Pseudo-Hypopyon, by Prof. Rollet, Lyon, France.

5. An Accessory to the Ophthalmometer, Forming a Corneal Microscope, by H. S. Gradle, Chicago.

6. The Sociologic Aspect of Errors of Refraction, by Wm. Zentmeyer, Philadelphia, Pa.

*7. The Intrasccleral Nerve Loops, by G. Attias, Munich.

*1. *Detachment of the Retina*.—Dr. Vail offers a very interesting article in his summary of the replies he received from 281 oculists, answering the two questions which he asked. The questions were: (a) How many cases of non-traumatic detachment of the retina have you permanently "cured?" (b) What was your treatment? 250 of the 281 oculists admitted they had never cured a case. Many had promising temporary results, but in the end, failures. The lines of treatment included all the way from "KI." to "Deutschmann." 31 oculists reported 41 cures. Two of the "cured" cases had detachment due to albuminuria of pregnancy and the cure was to perform an abortion, so those two cases should be excluded.

Dr. G. C. Savage comes forward with data, which, if time corroborates, will make him the discoverer of the "golden grain of truth in all the chaff." His treatment consists in repeated subconjunctival injections of xx gtts. of a xxv gr. to the j̄ of Citrate of Sodium. The first case he treated in this manner was merely an experiment and followed a supposition that the fluid behind the detached retina was of acid reaction. His idea was to neutralize the acid by the sodium citrate, and his results were so gratifying that he treated other similar cases. In each case his results were remarkable.

Dr. Vail puts forward a theory as to the cause of retinal detachment in the paralysis of the secretory function of the ciliary processes, thus suddenly arresting the secretion of aqueous. The withdrawal of aqueous reduces the tension which causes a passive hyperæmia of the vessels of the tunica vasculosa, with its diapedesis and transudation. The vitreous contracts because it loses its percolating supply of aqueous. The transuded material travels inward as this is the path of least resistance.

The causes of the paralysis are, *concussio oculi*, certain drugs, equatorial choroiditis, and certain auto-toxemias, etc.

*3. *Keratitis Punctata Superficialis*.—Dr. Phillips gives an interesting description of a case of *keratitis punctata superficialis* he observed in a nurse. There were 10 to 15 bluish-gray glistening spots, each surrounded by a light gray halo, situated in the lower right quadrant of the right eye. Later the left eye became involved in the corresponding quadrant. The patient is of a neurotic type and while the condition

improves then relapses, the writer has noticed the condition of relapse to always follow any severe mental strain or loss of sleep. The condition has existed for 3 years and without any apparent injurious effect.

7. Dr. Attias reports the peculiar course followed in the sclera of branches or offshoots of the ciliary nerves, which he found in certain specimens to traverse the thickness of the sclera. His explanation of the condition is that in the embryonic state, the nerves had grown too long for the bulbus and consequently a bending of the nerve occurred.

ARCHIVES OF OPHTHALMOLOGY. Jan 1913.

1. Retinal Changes in Adolescent, by A. Knapp, New York.
2. Eye Troubles Caused by the Use of Hair Dyes, by Juan Santos Fernandez, Havana, Cuba.
3. Peribulbar Inflammation Cyst After Removal of Staphyloma of the Cornea, by B. Samuels, New York.
4. Calcareous Degeneration of the Cornea and Lens Capsule, by Fred'k Tooke, Montreal, Canada.
5. Short Clinical Accounts with Microscopic Demonstrations of Two Cases of Tumor of the Optic Nerve, by Robt. Sattler, Cincinnati.
6. The Clinical Course of Conjunctival Affections Associated with So-Called Trachoma Bodies, by M. Cohen, New York.
7. On Acquired Retraction Movements of the Eyes, by Privat-Dozent Robt. Salus, Prague.
8. On the Chemistry of Senile Cataract, by Adolf Jess, Würzburg.
9. Hemianopic Pupillary Paralysis and the Hemianopic Prism Phenomenon, by Adolf Jess, Würzburg.

THE OPHTHALMOSCOPE. Feb. 1913.

1. Gonorrhœal Infections in Eye Diseases, by B. Cridland.
2. Experiments on the Excretion of Salicylic Acid in the Ocular Humors, by L. B. Whitham, Baltimore, Md.

JOURNAL OF THE AMERICAN INSTITUTE OF HOMŒOPATHY.

Feb. 1913.

- *6. Ion action and reciprocal ion action in amaurosis progressiva. Roland T. White.
9. Rhinophyma. James C. Wood.
- *6. J. G., an anemic boy 4 years old, not robust. May, 1911, rapidly failing vision. The writer found vision very defective with both

disks choked. Referred to Dr. C—— who reported neuritis intra-ocularis, with both retinae atrophied, right eye blind, left in an advanced progressive condition, prognosis very unfavorable; suggested electrical treatment be tried. For further expert opinion the case was referred to Dr. S——, who reported: Neuritis optica, both retinae atrophied, disk choking extreme in right eye and blind in the left eye, little vision remaining. Prognosis: complete blindness in about six weeks; no hope that any treatment would be of benefit.

June 15th: Commenced treatment, the ion action of high frequency electrodes for five minutes every second day, followed by magnetic wave radiation through the head and abdominal plexus of the sympathetic. Improvement began after the third week, rapid progress till he could go about unattended and play with other children. Treated with more or less regularity until late fall, when it was discontinued. While under observation no medicine nor any other treatment was used.

Electrical treatment was resumed in the spring, at the request of Dr. C. who reported: Very decided improvement, vision both eyes, retinal vessels show stronger with much less atrophy, some choroiditis and choking of the disks. General physical condition markedly improved; at time of writing remains well, making steady progress toward complete restoration of sight.

LONG ISLAND MEDICAL JOURNAL. Feb. 1913.

*2. Blood culture simplified by a new apparatus. Wm. Lintz.

4. The eyes of our school children. James Cole Hancock.

*2. A glass bottle (any size—vest pocket) and stopper *ground airtight*; a longitudinal groove along the lower half of the neck of the flask; a longitudinal canal in the stopper, opening at the top (center) and bending runs obliquely down and outward to open into the upper end of the groove when the stopper is turned to that position; turning the stopper shuts off the inside of the flask; a lubricant, such as graphite, facilitates the rotation.

Place in the bottle 0.5 g. of finely divided powdered sodium chloride, or 10 cc. of 1 per cent. solution of ammonium oxalate in normal saline, or sterile H₂O. Replace stopper, connecting the canal and groove; *produce a vacuum* in the flask (boil it in water or bring its neck above the surface of the fluid—or by any other method) and promptly rotate the stopper to close the flask; attach a needle directly to the stopper or by a rubber tube; cover the needle with a test tube and sterilize by boil-

ing, dry or steam heat. The apparatus is then ready for immediate use at any time in the future; the vacuum keeps.

Sterilize, or paint with iodine tincture, the bend of the elbow; plunge the needle into the median basilic or cephalic vein; turn the stopper so that the vacuum sucks, say, 10 cc. of blood; seal by rotating the stopper; remove the needle from the vein and cover its puncture with collodion. Shake the flask thoroughly; the above ingredients prevent the blood clotting but are not bactericidal—the bacteria commonly found multiply readily in it. But if typhoid is suspected 10 cc. of bile are to be put into the flask, instead of the above mentioned reagents, and incubate without further manipulation; if pneumococcus be sought one places in the flask a slightly alkaline solution of 10 per cent. peptone and 1 per cent. dextrose. Practically all microorganisms found in blood grow readily on bouillon or glucose bouillon, so no further manipulation is necessary if the blood be gathered in a bottle containing the latter mixture and incubated.

The (country) practitioner can mail the flask to the nearest laboratory in a thermos bottle or a roll of cotton wool which would prevent a lowered temperature killing the bacteria in the blood. With this apparatus any one can secure a nice, clear serum without hæmolysis of the red cells; this is of particular advantage for the Wassermann, Widal, meiasstigmin or cancer reactions.

There is experimental proof that (typhoid) bacilli enter the circulation by means of the tonsils.

A mastoid infection associated with a positive blood culture nearly always points in addition to a sinus involvement, although there may be no other symptom pointing to that condition.

MONTHLY CYCLOPEDIA AND MEDICAL BULLETIN. Feb 1913.

1. Sodium nitrite in arterial hypertension. WILLIAM HENRY PORTER.

4. Modern methods of drug standardization. (Continued.) F. E. STEWART and collaborators.

*5. Physical economics. (concluded.) ERASTUS EUGENE HOLT.

*5. With the formulas and nine tables (here given) there is a scientific and practical method for determining the economic value of man and the measurement of damages to any part or parts of his body in an equitable manner. Table 7, standard of measurement for loss of hearing, corresponds to table 6, standard of measurement for loss of sight, and also to table 8, ditto for smell, taste and feeling.

The principal factor in determining the earning ability of a person and his economic value depends upon the same law of average as that by which the life table for insurance is constructed. Slight loss of the binocular field of vision embraces its concentric contraction of 30° , or its equivalent in irregular contraction (from 180°) to 60° ; nearly total, concentric contraction of 85° , from 180° to 10° , when it becomes total loss of function for economic purposes. The damage to the functional ability of the body in the field of vision is the same as given in table 6 for acuity of vision. Losses in the muscular movements of the eye are readily comparable with losses in acuity of vision.

The article should be carefully studied; abstracting fails to do it justice.

J. OF LARYNGOLOGY, RHINOLOGY AND OTOTOLOGY. Feb. 1913

*1. Some Observations on the Nerve Supply of the Inferior Turbinal as Shown by Vital Staining. T. W. E. Ross.

2. Report for the Year 1912 from the Ear and Throat Department of the Royal Infirmary, Edinburgh. Part I.—An Analysis of 76 Consecutive Operations on the Frontal, Maxillary, Ethmoidal and Sphenoidal Sinuses. J. S. Fraser and Raymond Verel.

*3. Diffuse Osteomyelitis from Nasal Sinus Suppuration. Dan McKenzie.

*1. An exhaustive and minute study (microscopical) of twenty-five specimens of hypertrophied inferior turbinals supplied from operations in Dr. Logan Turner's clinic in Edinburgh,—it is accompanied by ten electrotype illustrations and two full page colored drawings of the microscopical sections of the turbinals demonstrating certain characteristics of the sensory and sympathetic nerve supply of the turbinal. The classic description of the actual physiological or micro-anatomical condition of the nerves in this body are interesting to the advanced student as possibly assisting him understanding some anomalous conditions or discovering some new etiological factor of nasal disease.

*3. This article covering 29 pages of the January issue, 5 in this and continued in the March is a most exhaustive and practical consideration of this interesting and rare disease of the skull bones dependent upon nasal sinus disease,—(only 41 cases being reported and author only feeling satisfied of unequivocal diagnosis of forty-one of such cases). Divided under following headings,—History—Pathology—Bacteriology—Aetiology—Symptoms and Course—Diagnosis—Prognosis, etc.

First case diagnosis by Tilley about '97 or '98 divided into two classes: (1) The acute, with the duration from three to twelve weeks. (2) The chronic, with the duration from six months to two years.

"The sure and certain sign of diffuse osteomyelitis, a sign which serves to distinguish it from simple septic inflammation of the operation wound and from simple perisinus abscess, is the appearance of an edematous swelling over the bone some distance away from the affected sinus.

"Syphilitic disease of the frontal bone may be mistaken for osteomyelitis, and should purulent frontal sinusitis accompany the gummatous disease in the bone. * * * Moreover, the diploe in the neighborhood of the sinus, though it will be converted into granulation tissue, will not contain pus.

"Osteomyelitis of the superior maxilla in children may be mistaken for simple antrum suppuration."

Altho postoperative osteomyelitis may not develop for months after operation still it "comes like a bolt from the blue—unexpected, inexplicable,"—and this is apt to follow the operation of the most skilled as well as the tyro. And in accordance to statistics now available, of the 41 cases 20 were postoperative, all dying, and 21 developed spontaneously, of which 7 recovered after surgical treatment.

THE OPHTHALMIC REVIEW. Feb 1913.

1. The Relation of the Nasolacrimal Canal to the Maxillary Antrum; Formation of the Lacrimal Recess, by S. E. Whitnall, Oxford, Eng.

2. The Shape of the Orbit; Its Influence Upon the Eyeball, by S. E. Whitnall.

*3. Crater-like Hole in the Disc Associated with Changes at the Macula, by R. R. James.

*3. *Crater-like Hole in the Disc.*—The patient, a boy, was brought to the hospital for correction of a squint in the left eye, which had been present for one year. An examination with the ophthalmoscope revealed the unusual condition of a hole in the disc situated on the temporal side just below the horizontal meridian. At the outer side the hole reached the pigmented edge of the disc and had steep, upper, lower, and outer edges, while the inner edge is more sloping. The reflex from the disc was a little paler than normal, while from the area of the hole it was of a slate-blue color.

Reference is made to the limited literature on the subject.

MEDICAL RECORD. Feb 22, 1913.

2. Personal Observations with Suspension Laryngoscopy. Wolff Freudenthal.
4. Paralysis of the Recurrent Nerve Due to Circulatory Lesions; with Remarks on Recent Therapeutic Measures. J. W. Gleitsmann.
5. The Care of Speech Defectives. E. W. Scripture.
6. Large Doses of Antitoxin Given Early—A Means of Preventing Laryngeal Stenosis. Louis Fischer.
7. The Etiology of Iritis. George W. Vandegrift.

SOCIETIES.

AMERICAN HOMŒOPATHIC OPHTHALMOLOGICAL, OTOLOGICAL AND LARYNGOLOGICAL SOCIETY.

Fellow Members:

After considerable discussion and much correspondence, the officers of the society have decided to hold the next annual meeting in Chicago. Many of our members expressed a desire to meet in Denver with the Institute, while a large number decidedly opposed Denver for two reasons: (1) that Denver was too far away from a large percentage of the membership, (2) there seemed to be a large number of members who felt that our meeting should be independent of the Institute meeting and therefore preferred to meet a few days earlier than that body. Considering the wishes of all and abiding as nearly as possible by the "majority rule" the verdict finally fell upon Chicago. The meeting will therefore be held in that city on Wednesday, Thursday and Friday preceding the week of the Institute gathering. We will celebrate the Fourth of July with our Chicago friends. No doubt they will provide sufficient fireworks to make it interesting for all.

Material for the next program is beginning to appear and, as far as received, presages an unusually interesting program. However, there are still a goodly number of our excellent members who have not been heard from. Please let us have your contribution soon. We may not all be Bull-Moosers, but we must all be Progressives in the line of homœopathic ophthalmology, etc. Do not wait for a personal invitation to write a paper. Remember, the officers alone cannot produce a successful meeting. Send along the title of your paper within the next few days. Also kindly remember that the by-laws of the society require that all papers to be presented at the next meeting must be in the hands of the Secretary not later than April first.

Remember the date—July 2d, 3d and 4th. Mark these dates off your calendar and begin to make your preparations now to attend the meeting. It is also the wish of the officers of this society that our members all attend the meeting of the Institute the week following. Surely we are all interested in the welfare of homœopathy. Let's not be parasites, but producers in the great field. Let our motto be "the Fourth in Chicago and on to Denver." We are going to make a feature of homœopathic therapeutics; come primed.

DEAN W. MYERS, *Secretary.*

GEO. A. SHEPARD, *President.*

BOOK REVIEWS.

TEXT BOOK OF OPHTHALMOLOGY IN THE FORM OF CLINICAL LECTURES.

By DR. PAUL ROEMER, Professor of Ophthalmology at Griefswald. Translated by DR. MATTHIAS LANCKTON FOSTER. *Volume 3*. Cloth, 323 pages, 186 illustrations in the text and 13 colored plates. Price, \$2.50, net. New York. Rebman Co. 1913.

This third volume covers the pupil, pareses of the ocular muscles, neurology of the eye, diseases of the "choroid," of the optic nerve, and retina, functional testing of the eye, and asthenopia.

The illustrations, typography, paper and binding are excellent. This completes the work, and when the present small edition is exhausted it will be bound in one volume, cloth, at the same price—\$7.50.

As was to be expected we here find a complete index of the whole work with lists of the illustrations and colored plates of the three volumes. The list of authors alone covers three triple column pages.

To those having the other volumes nothing need be said about this further than that it will be no disappointment; those buying—or reading—this volume will want the others, too.

PRISMS, THEIR USE AND EQUIVALENTS. By JAMES THORINGTON,

A. M., M. D. Cloth, 144 pages, 118 illustrations, of which 18 are colored. Philadelphia. P. Blakiston's Son & Co. 1913.

The only book (to our knowledge) confined to this subject. Needless to say, it is thorough and clearly written and arranged. The student ignorant of physics is given the fundamentals, and the expert will be interested in the author's truncated double prism and ideas on prism treatment. Patients tested with the Maddox double prism found difficulty in describing whether the central light, in low degrees of hyperphoria, approached the upper or lower images of the other eye. Dr. Thorington therefore had the edge or top of the double prism cut off evenly leaving a flattened top 3 mm. wide "making what he has chosen to call a truncated prism." With this the observer immediately sees a central true light with (if the truncated prism has been accurately ground) an image above and another below, equidistant—of red or blue according to whether the prism is made of or combined with ruby red or cobalt blue glass. These three lights are seen to be connected by a band of light, and the whole is distinct from the single white light seen by the other (right) eye.

Figure 92 should be turned 90° so that its truncation would harmonize with figures 91 and 93 on each side of it. It is a pity that vertical is repeatedly spelt verticle wherever it occurs in the legends of the colored illustrations; the word is correctly spelled in the text. We are sorry to see that Dr. Thorington's pen still slips into the antiquated "astigmatism;" this is inexcusable in a text book, however excusable in speaking (not lecturing).

SAFEGUARDING THE SPECIAL SENSES. By HENRY O. REIK, M. D., formerly Associate in Ophthalmology and Otology, Johns Hopkins University, and Surgeon, Baltimore Eye, Ear and Throat Hospital. Cloth, 123 pages, illustrated, 75 cents, net. Philadelphia: F. A. Davis Co. 1912.

A compact little book of general advice written clearly and entertainingly for the intelligent laity, one that we recommend for school and other public libraries. Those of us asked to address the laity upon these subjects may find it worth while to read this presentation, for the chief difficulties are what not to say on such occasions and not to go too deeply into the subject. Dr. Reik has met these difficulties admirably, and has presented the question of prescribing by opticians in a model manner. This brief and practical exposition of the dangers of neglect is commended to the family physician who is supposed to pass on from the specialists to his families such knowledge but who is not often enough consulted regarding preventive methods.

In criticism, we suggest for the second edition: a hint that nasal affections sometimes have a causal relation to some eye troubles, that collyria should be clear (v. page 59, this JOURNAL for January—"The filtering pipette"); in figure 1 the "anterior chamber" be elucidated; but more particularly do we criticise the perpetuation of the old and unscholarly term astigmatism. Those of us who were so taught may be pardoned its occasional use by lapsus linguæ, but authors and lecturers owe a duty to the rising generation to give what is scholarly, up to date and accurate. As the reviewer has been urging for eighteen years (the error was first pointed out by Dr. Georges Martin) Rev. Dr. Whewell erroneously based the new term upon the Greek *stigma-tis*, a point in the sense of a prick or mark, whereas he should have used the next word in the lexicon *stigme-es*, a mathematical point, from which (like aphonia) the English word would be "astigmia" and its derivations astigmatic, astigmatism. We sincerely hope that hereafter Dr. Reik will join the ranks of those authors who, in increasing numbers, are using the new in place of the old term.

DISEASES OF THE THROAT, NOSE AND EAR. For Practitioners and Students. By W. G. PORTER, M. B., B. Sc., F. R. C. S., Ed. Surgeon to the Eye, Ear and Throat Infirmary, Edinburgh; Surgeon, Ear and Throat Department, Royal Hospital for Sick Children, Edinburgh; Aurist to the Edinburgh Royal Institution for the Education of the Deaf and Dumb. With 77 illustrations, 44 of which are in colors. William Wood & Co. New York. 1912. Octavo, 308 pages. Muslin, \$2.50, net.

Seldom is it that we find a book practically carrying out the proposed objects of the author as mentioned in his preface. The book is not intended for the specialist, but is written for the general practitioner and student of medicine; for this reason much perplexing impractical and voluminous matter—such as minute anatomy, histology and the

more technical operations—is omitted. The good judgment shown by the material included and that eliminated demonstrates the keen observation and practicability of the author. The semiology, etiology and diagnosis are very clearly explained; the treatment of the more ordinary diseases is well described. The color illustrations of the membrana tympani are very realistic and the publishers' make-up is first class. For this concise book we predict an early 2d edition, as we believe our general medical confreres will appreciate its practical contents.

The Journal of Ophthalmology, Otology and Laryngology

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No. 5

EDITORIAL.

THE SCIENTIFIC ATTITUDE.

SHOULD optimism have weight in true science? If so, to what extent? The marvelous advances made in medicine and surgery are based upon a foundation of facts, which foundation is a firm one in so far as the facts and deductions withstand conservative criticism. Criticism of our reports and papers should always be personal and kindly; one should be his own most severe critic.

The enthusiasm aroused by the brilliancy of a new treatment naturally stimulates the optimistic physician or surgeon to repeat the experiment, but in order to add his portion to the sum of scientific knowledge he must be conservative in its application and governed by the scientific spirit. "Nothing great was ever achieved without enthusiasm," but it must have been an enthusiasm which enabled one to persevere doggedly and to build firmly. It is natural for the wish to be father to the thought (witness the ordinary clinical report), but it is not scientific. "Facts speak for themselves" when each and all of the facts have opportunity to be heard—and weighed.

A clinical report—whether it be medical or surgical—should be so full and accurate that the reader will agree with the writer in his diagnosis and conclusions, and particularly that the relief or cure claimed must be attributed to the treatment and has not proven (or been possibly) evanescent or only apparent. All adjuvants and changes in environment should be mentioned as well as the promptness and permanence of the relief.

One of the elements of Abraham Lincoln's success was his comprehension of what is meant by a "demonstration." Let our clinical reports be demonstrations, not mere assertions; it is better to satisfy the critic than the optimistic sympathizer.

Medical literature for the last hundred years and more has been crowded with clinical reports which are only assertions, not demonstrations; what scientific value they possess rests upon their numbers: so many verifications of a symptom (for instance) by innumerable observers in various parts of the world and covering so many years warrant an inference of fact in place of its absolute proof. But the latter is preferable, and we urge our readers to adopt it as their standard.

“Reading maketh a full man,
Conversation maketh a ready man,
Writing maketh an accurate man.”

A report of a consecutive series of cases far outweighs an equal number of cases which are open to the imputation of being selected. We learn as much, if not more, by our failures; it is no disgrace to lose a round in our fight with death and disease,

“It isn’t the fact that you’re licked that counts,
It is how did you fight, and why?”

This journal holds a unique position and therefore feels a right to demand support; its ambition—its duty—is to present papers of the highest order, addressed to exclusivists and specialists, but there is a duty also to the general practitioner who, more than ever before, prefers such papers to rehashes and platitudes.

Give us reports of failures, with the lesson you (or we) may draw from them. Give us reports confirming symptoms or procedures instituted by others without waiting to make innovations yourselves. Tell us about local conditions as encountered in your practice; give us observations upon your portion of mankind and its environment.

Give us papers, brief papers, good papers. You can, if only you will. This means you, “gentle reader.”

IN UNION IS STRENGTH.

The old Dutch motto of the city, and now of the Borough, of Brooklyn, expresses this in another way: Een draght macht maght; but its citizens are not the only ones who develop power by pulling together. The medical profession is beginning to pull together better than ever before, and in consequence is finding itself more powerful than ever.

Chairman James C. Wood, of the Committee on New Members, has set out to add a thousand members to the roll of the American Institute of Homœopathy at or before its Denver meeting, July 6th to 12th. A copy of his circular on page 201 will be placed in the hands of every homœopathic physician in the United States. We can conceive of but four explanations for each or any failure to respond affirmatively:—1st, the doctor is already a member; 2d, he is not in good repute; 3d, he is too selfish to join the Institute for the benefit of others; and 4th, he is too atrophied to do it for his own benefit.

The first is an honorable excuse—provided he keeps in the good graces of the treasurer.

2. It is not every one calling himself a homœopath who can become a member; membership signifies that one is not only reputable but it classes him with the best and most progressive members of our profession.

3. Such selfishness is of all grades; some are hopeless, but we firmly believe that in the great majority of cases it is so slight as to masquerade as carelessness, thoughtlessness, procrastination and pre-occupation. None of these are acceptable excuses; it is the busiest man who has (makes) the most time to do things.

4. This abnormality may be acute, subacute or chronic; like many other chronic infirmities it is hopeless when chronic and should be referred to Dr. Wm. J. Robinson for euthanasia—in fact death has already set in.

Poverty can hardly be offered now that the dues have been reduced to so low a point that it is feared the Institute may fail to command the respect—of some few individuals.

GLAUCOMATOUS TENSION RELIEVED BY ANTERIOR SCLEROTOMY.

G. DEWAYNE HALLETT, M. D., O. ET A. CHIR.

Surgeon at the N. Y. Ophthalmic Hospital, the Hahnemann Hospital, and the Laura Franklin Free Hospital for Children.

THE patient, Mary S., 42 years old, presented herself in my clinic at the N. Y. Ophthalmic Hospital on the 27th of June, 1911, with acute glaucoma in the left and absolute glaucoma in the right eye.

There was a history of a severe and painful inflammation in both eyes seven years previously, with loss of vision and more or less permanent pain and irritation in the right eye, the left recovering except for a moderate reduction of vision. For four months just preceding my first examination there had been pain and failing vision in the left eye, and for six weeks she had had treatment in another public clinic.

The examination disclosed in the right eye a condition of absolute glaucoma, a large sloughing corneal ulcer and an anterior staphyloma. In this eye an iridectomy had been made.

In the left eye she had acute glaucoma with the usual signs of insensitive and steamy cornea, dilated pupil, shallow anterior chamber, vascular conjunctiva, some chemosis, puffy lids, and absence of nasal field of vision.

The tension was high. She was able to count fingers to the temporal side at a distance of six feet. It was impossible to make out the details of the fundus.

She was admitted to the wards, eserine instilled in the left eye and the right one enucleated.

A few days later, tension still remaining high, it was decided to enter the anterior chamber in an effort to so reduce the tension as to render the eye more favorable for an iridectomy. For this purpose I elected to use a split keratome, and it was accordingly entered well back in the sclera passing through the iritic angle, making as wide an incision as the instrument would allow.

Postponing iridectomy, it was found, one week later, that vision was 10/200 and tension normal. In the course of four weeks the

vision improved to 20/100, and she still retains this power. Deficient as it is it has enabled her to take up her former occupation.

In a recent examination she reported her eye as having been entirely comfortable. It was free of any signs of congestion, the pupil reacted fairly well to light, vision remains 20/100, there was marked glaucomatous cupping and the field much contracted—altogether apparently in a state just as arrested by the sclerotomy twenty-one months ago.

274 West 86th Street.

An Opening for Mistakes in Diagnosis. Dr. A. A. Thibaudeau (*Journal A. M. A.*, Aug. 10) reports finding several varieties of *spirochæta* in 61 mouths out of 149 that he examined, and in none of them was there a history of syphilis. He does not say that these were the *pallida*, but they looked like them, so much so, indeed, as to open “the possibility of these organisms causing a mistake in diagnosis.” It also raises the shadow of a doubt, in skeptical minds at least, as to the accuracy of bacteriological diagnosis in all diseases when it is recalled how many “micro-organisms” said to cause dangerous disease are found on those who are enjoying, and who continue to enjoy, good health, and also by reports of cases where the patient has the disease but not the micro-organism.—*Hom. Rec.*

Photophobia is a frequent symptom in hypophyseal disease; it is often accompanied by deep orbital discomfort and sensitiveness of the eyes to pressure.

Slow pulse and subnormal temperature may be suggestive of hypopituitarism.

Headache (possibly vomiting) and choked disk superimposed upon primary optic atrophy point to a **bursting hyperplastic pituitary body**.

In **unilateral sinus thrombosis** Ruttin found among 30 cases in which the sinus was opened and the jugular ligated evidence of choked disk in only 8 cases; according to Wagner this is due to a serous meningitis rather than to a stasis of blood.

“Nervous Cough” is sometimes kept up by swelling of the lateral bands of the larynx; paint these gently with deliquescent trichloroacetic acid, follow by brushing with sodium carbonate.

Sometimes it is relieved by emptying engorged tonsillar crypts.

INTRAOCULAR TUMORS.

J. K. M. PERRINE, M. D.,

Pittsburgh, Penn.

THE subject of intraocular tumors has proved especially interesting to me in the last year, because several very interesting cases have come under my observation during that time.

The principal object of this paper will be a consideration of the surest and best methods of making an early diagnosis. It often happens that we do not see these cases until they have developed to such a degree that a diagnosis by use of the ophthalmoscope is out of the question. For convenience in diagnosis the development of these tumors has been divided into four stages: the quiescent, the inflammatory, the extraocular, and the metastatic.

When a case is seen in the quiescent stage the diagnosis is very readily made by the use of the ophthalmoscope, but the great danger in this stage lies in the fact that the tumor may not be suspected unless it originates in the region of the macula, when vision is affected from the very beginning. The ophthalmoscope will reveal an extensive detachment of the retina. This is, of course, the best time to determine the diagnosis, for the best results will follow the early removal of the globe.

Sarcomatous growths are by far the most frequent, but quite often we meet with other neoplasms, especially of the choroid, such as tubercular and carcinomatous.

Angioma of the iris is a very rare condition, although the history of some of these cases is very interesting. With the growth of the neoplasm the detachment becomes greater and is accompanied by a corresponding increase in the defect in the visual field until blindness becomes total. At this time the appearance of the eyeball may be unchanged; tension may be noticed from twelve to fifteen months following the beginning of the growth. This tension may occur suddenly and have many of the symptoms of glaucoma.

Now we are entering upon the inflammatory stage; the suffering of the patient is almost continuous. The diagnosis is not much in doubt from this point, the eyeball is constantly injected and large

varicose veins are conspicuous over the site of the tumor. As the tumor increases the sclerotic covering becomes thin, bulges and gives way. The duration of the second stage is much shorter than that of the first.

The extraocular stage. After the tumor perforates it grows very rapidly, forming a bluish-gray projection from the surface of the globe which is at first covered with conjunctiva, this in a short time ruptures leaving the ulcerated surface of the neoplasm exposed, which gives rise to foul smelling discharge and frequent hæmorrhages. At this point the pain about ceases but the tumor increases rapidly. If the perforation takes place in the posterior position it soon displaces the eyeball. The neighboring lymphatics are never affected; the disease spreads to the lids and surrounding skin, and extending backwards through the sphenoidal fissure and the optic foramen reaches the base of the brain.

The metastatic stage. When the tumor has attacked the neighboring tissues of the globe secondary growths begin to form in the distant organs.

Wilson and Thompson, from an extended study of the literature, including 530 cases, find that metastases have been recorded in 61 cases. The location of the secondary growth was in the cranial and facial bones in 39 cases; brain, including the optic chiasm, 13; lymph glands, 17; parotid gland, 8; other bones, 7; liver, 7; submaxillary gland, ovaries and kidneys, each 2; spleen, lung and spine, each 1.

Case 1. The chief difficulty in the early ophthalmoscopic examination is to discriminate between sarcoma and exudate due, most frequently, to syphilis. A case that had been diagnosed as subacute glaucoma was referred to me by Dr. J. H. McClelland. This case gave a history of a previous attack of syphilis. I had Dr. F. S. Morris make a Wassermann test, which proved negative. I was then satisfied that it was an intraocular tumor and advised removal. The globe was referred to Dr. F. S. Morris, who reported a large angiosarcoma of the choroid.

Case 2 gave history of having been treated for syphilis about 10 years previously; Wassermann test proved positive. This case improved under potassium iodide; it seems that would be a good reason for making the Wassermann test on all cases that are doubtful and do not give a satisfactory history, and especially where a syphilitic history is given.

Glioma of the retina. This is the kind of intraocular tumor that would be most constantly confused with sarcoma of the choroid, were not the diagnosis settled by the age of the patient.

Tuberculosis of the choroid commonly takes the form of small tubercles which show as yellowish rounded spots in the ophthalmoscopic examination, later in the course of acute general tuberculosis; a different form, more chronic in its course, gives rise to a rounded tumor, almost white in color, which is generally seen imperfectly, on account of the opacity of the dioptric media. It is about the only tumor springing from the choroid that is likely to be confounded with sarcoma.

Scleral puncture to clear up the diagnosis of sarcoma in the early stages has been reported upon adversely. P. Schultz reports a case: he obtained a fluid of a reddish-brown color containing granular matter and leucocytes but no characteristic tumor cells, although the enucleation proved it was a round cell sarcoma. Hirschburg, who proposed this method, has abandoned it. The danger in this method is pointed out by Schultz. The needle track through the sclera offers a direct and favorable avenue for the extension of the tumor beyond the limits of the eyeball; on this account it must be reserved for cases in which enucleation can promptly follow a diagnosis of sarcoma.

Sarcoma of the iris. From their position growths of this kind are likely to be discovered early; if relief is promptly sought it is practicable, in many cases, to remove the tumor by iridectomy, which should be done at the earliest possible date. In one case of this kind which proved to be of the spindle-cell variety there has been no recurrence two years following operation. If the tumor is very close to the ciliary border, enucleation of the eyeball should be advised, even though the eye still has good vision.

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DISCUSSION.

R. S. COPELAND: I think the subject of intraocular tumors an interesting one. This excellent paper recalled an experience of my own of a good many years ago. A patient presented himself in my clinic complaining of some disturbance in vision without inflammatory symptoms. There was no pain; he was conscious of a dark spot before his eyes and diminished vision only. An ophthalmoscopic examination revealed slight detachment of the retina, probably from an intraocular tumor. Eventually there was total detachment of the retina. The thing of interest about the case was that the patient heard my descrip-

tion of the condition in his eye and reasoned out that if the detached retina was lying in the bottom of the chamber he ought to be able to see if he stood on his head. He went home and, looking out through the door from between his feet, saw the trees and the landscape a mile away. He was convinced that I was a great doctor! The eye finally had to be enucleated. The tumor proved to be a melanoma about the size of a pea.

In another case of tumor the patient did not present himself until the tumor had filled and ruptured the eyeball; this was a black, unsightly tumor size of my fist. The tumor and eye were removed. For three months he enjoyed apparently good health and then died from metastasis to some internal organ.

E. J. BISSELL: So far I have been fortunate in not enucleating an eye where there has been detachment of the retina, although I came near doing it a year ago. A man came to me at that time, who had been treated three years before for a toxic amblyopia from alcohol, complaining of poor vision. I found the vitreous was foggy and in the anterior portion of the vitreous I discovered what appeared to be a tumor. There were increased tension, redness and pain. It seemed a typical case of tumor. I told him that the eye would have to be sacrificed and I would prefer him to see another specialist before performing the operation. He did so and came back with a diagnosis of intraocular tumor and the advice that the eye be immediately removed.

I gave him material doses of potassium iodide. The next day he came in and said that the eye was better. I examined the eye and it certainly was much more clear than it had been—more difficult to detect any detachment. The next day it was still better. I asked him to go to another specialist. He telephoned me that it looked like detachment but he could not be sure of it. At the end of a week there was no detachment at all. The man has his eye apparently as good as ever. In this case transillumination gave all the characteristics of intraocular tumor.

E. G. LINN: I have gone through a very similar experience to that related by Dr. Bissell. I made a diagnosis of intraocular tumor and advised enucleation; the patient saw a very capable man who confirmed my diagnosis; a colleague in the same office added his testimony. Operation was positively refused. That was four years ago and she still has her eye; the condition does not seem to have progressed.

H. S. WEAVER: A widow seventy-one years of age came to me complaining of slightly defective vision. I refracted her and could bring the vision of the right eye up to 20/20. The left eye had a plus tension; I examined the fundus and found a small tumor attached to the retina. I kept her under observation; the tumor was perceptibly larger at the end of four months. She had adopted Christian Science and had vowed that no matter what ailed her she would not take any medicine. I lost track of her until six weeks ago when a relative came

in to me. This has been two years since I had examined the eye. I was told that she was in California suffering extreme agonizing pain in the left eye. I told her of my diagnosis made two years previously. It seemed that she had been before that to Dr. C. M. Thomas who had told her the same thing. She is now in a dying condition, and I have been promised the privilege of dissecting her eye after death. The 20/20 vision is a peculiar feature of this case.

G. W. MACKENZIE: In cases of detachment of the retina, transillumination in a dark room through the pupil with the so-called Sachs lamp gives excellent results. It has a reflector in the back and a conical lens in the front. It gives a powerful illumination and you get a red reflex in every portion of the normal eye or even in cases of detachment, while a shadow is seen in cases of a tumor corresponding in size and location.

E. J. BISSELL: I used it but it was a practical failure with me.

G. W. MACKENZIE: It may fail on rare occasions but still it is an excellent instrument.

G. A. SUFFA: Mistakes in diagnosis must be looked out for in these cases. I know a young colored boy who had been struck and roughly handled so that the sight of his eye was affected. The condition was pronounced to be a glioma of the eye; it proved to be nothing else than a ruptured ligament with opaque lens. The removal of the eye was advised but not followed and the trouble entirely disappeared in two years.

J. K. M. PERRINE: I have not much to say in closing but might mention that I have a case from the hands of an advertising oculist with the diagnosis of intraocular tumor; on close questioning I found that there had been specific disease and he is now getting well without operation.

Hints on Surgical Technique.—A peritonsillar abscess can be opened almost painlessly if the line of incision in the mucous membrane, and the tissue beneath, are infiltrated with an anesthetic solution injected with a syringe just as one anesthetizes the skin.

H. Reich, Tübingen (*Zeit. für Chir.*, Nov. 9, 1912), reports the successful transplantation of a section of the ear with its cartilage to fill the defect caused by the excision of a cancer of the left naris.

Lucy Frey, negress, born a slave, June 20, 1790, is still at work as a laundress in Culpepper county, Va.—*Buffalo Medical Journal*, Mar., 1913.

QUININE AND UREA HYDROCHLORIDE.

OSCAR NORTHWAY MEYER, M. D.,

Middletown, N. Y.

THE alarming systemic manifestations of cocain when an idiosyncrasy for this drug exists led me to investigate the merits of quinine and urea hydrochloride, for the manufacturers of this product claim it is nontoxic as a local anesthetic.

As the surgery of the nose, throat and eye is largely conducted (where possible) under local anesthesia, a safe as well as effective agent would prove of prime importance to us.

Therefore when quinine-urea hydrochloride was brought to my attention some time ago, I decided to try it as a substitute for cocain.

I have found that for safety and efficiency it is all that is claimed for it. I secured complete and lasting anesthesia in every case I have operated under its influence.

There have been no disagreeable symptoms which could be traced to its use, and the apprehension so typical with cocain is chiefly thought of because of its entire absence (both in patient and surgeon).

I have used this anesthetic in various strengths, from $\frac{1}{4}$ per cent. up to 5 per cent., hypodermatically and with entire success. The weaker solutions have a less profound effect and are more transitory in action.

Above 1 per cent. the anesthesia is complete, and in from 10 to 30 minutes after injection operative procedures can be inaugurated and conducted deliberately because we can be confident there will be no pain nor poisoning. As the effects last in my experience over three-fourths of an hour (the makers claim several hours), undue haste is unnecessary.

The success of this combination led me to experiment in an endeavor to secure painlessness as well as bloodlessness; the quinine-urea hydrochloride in combination with adrenalin chloride produces a solution which will provide anesthesia and nearly perfect ischemia. I am using equal parts of quinine-urea hydrochloride (4 per cent. solution) and of adrenalin chloride 1:1,000, and I have no doubt this can be further reduced and the good effects of both drugs maintained. I have removed tonsils (enucleation), turbinates and polypi, exenterated

ethmoid cells, resected septa and in fact conducted all operations on the nose and throat which I have been called upon to do in my office (under the influence of this mixture), and have yet to record any failures. The numbness is fully as great as with cocain and lasts longer—the combination seems to enhance the value of the adrenalin as a hæmostatic; what bleeding there is is oozing only and very slight—I have had no secondary hæmorrhages.

Healing seems to progress about as with other local agents.

The main “don’t” to bear in mind is about commencing operation too soon—better wait 20 minutes at least rather than make a premature and unsuccessful start.

In the nose inject under the mucous membrane along the line of proposed incision when possible.

In tonsil work inject into the pillars rather than the tonsil itself. There seems to be no limit as to the amount we can use and therefore I try to be sure to use enough.

Quinine and Urea Hydrochloride.—From a year’s experience with this substance in nose, throat and ear work, as well as in minor operations on other portions of the body, the author concludes that it is a valuable and safe local anesthetic. In using it no untoward systematic effects need be feared. Anesthesia may be obtained in from three to forty-five minutes; in the majority of cases, in the author’s experience, anesthesia was complete in ten minutes. The anesthesia is as profound as with cocain, eucain or novocain and of much longer duration, lasting from a few hours to several days, three days being the average.

Bleeding is not controlled by the drug, though it is materially lessened, especially by the use of the stronger solutions. In none of the cases in which intranasal operations were done did it become necessary to pack the nostrils. In none of the cases of amygdalectomy was any change in diet of the patient ordered, and in no case did the patient miss a meal, the act of deglutition causing no pain.

Solutions ranging in strength from 1 to 4 per cent. were used. In general, in cases where primary union is to be obtained it is desirable to use the lower percentages, though sometimes, in vascular areas, the stronger solutions may be employed without materially delaying union. In wounds to be healed by granulation and not in vascular areas medium percentages should be employed. Where healing by granulation in vascular areas is expected the higher percentages should be used because of their hæmostatic effect.—*W. Green, New York Medical Journal, May 6, 1911.*

HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

DEPARTMENT EDITOR, PHILIP RICE, M. D.,
San Francisco, Cal.

Notes on *Argentum Nitricum*.

PHILIP RICE, M. D.

For nothing is an oculist so profoundly grateful in his work as he is for the passing of a critical condition. The relief and satisfaction that comes to him when he sees a serious inflammatory or ulcerative process fade and leave a clear cornea and a generally good eye surpasses all bounds.

That the physician who complies with the law of similia in his work experiences this pleasurable feeling more often than the one who does not can hardly be questioned.

One of the many remedies that comes to his aid in the two most treacherous diseases that he is called upon to treat, namely, gonorrhœal ophthalmia and ophthalmia neonatorum, is *argentum nitricum*. The value of this remedy in these conditions cannot possibly be overstated. It is doubtful if any remedy takes precedence over it. The *virulence* of the inflammatory process for which it is the similimum can scarcely be comprehended. It reaches a high degree of activity in a very short time. In rapidity of action it makes one think of aconite. Profuse thick, yellow, *but bland pus*, is in many cases found at the end of twenty-four hours. The blandness of the pus is characteristic; is peculiar and striking since the action of the remedy when applied to the mucous membrane is distinctly escharotic. And that we should expect an irritating and acrid pus is quite natural. This aids in differentiating between it and *mercurius cor.* The latter is frequently called for in these very violent inflammatory processes, but the character of the pus is always acrid, as is also the lachrymation. The *argentum photophobia* is about as severe as it is possible to be. Even the faintest ray of light causes the patient to cry out with pain. The conjunctiva is intensely red and swollen. The caruncula looks like a piece of raw meat. Not infrequently the cornea is covered by the folds of the swollen conjunctiva, and when seen is more or less opaque. This opaqueness is not necessarily due to an ulcerative process but is caused by the interference of the corneal nutrition. That ulceration will shortly occur unless the disease is checked goes without saying. All the symptoms are < by heat, whether this be moist or dry. A warm room is trying, and the heat from a stove is unbearable. The open air and cold applications give some >. Here we find the remedy very similar to *pulsatilla*. This has profuse discharges of bland, thick, yellow pus, with < of symptoms by heat and in a warm room and > in open air and by cold applications. The chief point of difference

lies in the temperaments of the two remedies. *Argentum* has a bilious mental temperament and the *pulsatilla* has a sanguine vital. The former is dark, sallow, thin, scrawny, irritable, easily angered, apprehensive, fearful, hard to deal with. The latter is more often light than dark, is never thin and scrawny, never sallow but instead inclined to be flushed, and though possibly irritable is amenable to reason, consolation and proper handling. The more one tries to do for the *argentum* patient the more disagreeable often does he become. (*Nat. mur.*, *nux* and *sepia*.) Then again, the *pulsatilla* condition is never marked by rapid progress. It requires days to reach a point that *argentum* is likely to reach in a few hours. *Mercurius cor.* is more like *argentum* in rapidity of action. In fact these two remedies have many symptoms that are similar. The one thing that clearly differentiates between them has already been mentioned, namely, the character of the discharge.

Argentum nit. follows well after *mercurius cor.* and *pulsatilla* in purulent conjunctivitis, especially in the characteristic *argentum* type of patient.

This remedy affects the whole nervous system very profoundly, hence it is natural that the eyes, too, are involved. There are general weakness with tremors; incoördination of various groups of muscles; muscular asthenopia; sudden vanishing of sight, due to inability to maintain a focus; eyes feel strained even after using them on coarse work. These symptoms we find to frequently follow sexual excesses. This latter the *argentum* patient is invariably guilty of. The depleted nerve force, impotence, want of sexual desire, shriveled organs, all point to this excess; that the eyes manifest weakness is to be expected. One of the frequent causes of eye strain in boys is masturbation; for this *argentum*, *cinchona*, *phosphoric acid* and *staphisagria* are our leading remedies. Others are occasionally called for, but these are our leaders.

CURRENT LITERATURE.

DEPARTMENT EDITORS.

WM. McLEAN, M. D.,
New York

FRANK O. NAGLE, M. D.,
Philadelphia.

AMERICAN MEDICINE, January

5. Personal experience with submucous resection of the nasal septum. Wm. Ferguson.

8. The rôle of the surgeon in certain forms of nose affections. Wm. H. Newcomb.

ANNALES DES MALADIES DE L'OREILLE, DU LARYNX, DU NEZ ET DU PHARYNX, Janvier.

1. Les crises vertigineuses dans les insuffisances labyrinthiques chroniques. Etats labyrinthiques avec syndrome de Ménière sans inflammation suppurée. L. Baldenweck.

THE JOURNAL OF OPHTHALMOLOGY AND OTO-LARYNGOLOGY. February.

*1. Blood changes in sympathetic ophthalmia. Harry S. Gradle.

*2. Submucous resection of the nasal septum, with report of 100 cases. Horace T. Aynesworth.

*1. In sympathetic or impending sympathetic disease there is in the blood a relative increase in the mononuclear white cells at the cost of the polynuclears, particularly the polynuclear neutrophiles; this increase is mainly among the true lymphocytes. A mononucleosis developing during the course of a traumatic uveitis is of great diagnostic significance in predicting the outbreak of a sympathetic ophthalmia.

What one man with a certain stain and a certain type of microscope would call a large mononuclear cell, another man with a different method of fixation and a different stain and a different style of microscope would class as a small mononuclear or lymphocyte.

Small herds of lymphoid infiltration in the stump are sufficient to raise the suspicion of sympathetic trouble. According to Elschnig an outbreak of anaphylactic iridocyclitis is dependent upon two factors: an antigenic absorption of uveal pigment from the traumatized eye with subsequent sensitization of the entire organism, and some work of a somatic anomaly as an autointoxication.

Mononucleosis after perforating injury of the eye means the possibility of a sympathetic outbreak; if absent there is no danger of this. The time is in the very near future, says Gradle, when we can apply a test and predict with absolute certainty the possibility of an outbreak of anaphylactic iridocyclitis.

*2. The author's submucous resections almost invariably preceded the tonsillectomy; he considers this the logical order. In cases of incipient tuberculosis with nasal obstruction he thinks this operation indicated, provided there are no special contraindications.

ANNALES d'OCULISTIQUE, Fevrier.

*1. Historie de la guerison d'un aveugle-né. Moreau.

*2. Une modification au procédé de suture de la cornée dans l'opération de la cataracte. H. Liégard.

*1. An extremely interesting narration in much detail of the training and developing of vision after operating congenital cataracts in a boy 8 years old.

*2. Liégard modifies Kalt's operation by making the corneal "tunnel" for the first needle (the thread has a needle at each end) exactly horizontal as near as possible to the limbus, and the scleral insertion and emergence of the second needle corresponding to those of the first tunnel, about a millimeter distant and also exactly horizontal. The fixation of the globe is about at 11 o'clock for each eye, and is not disturbed between the placing of the two sutures.

MEDICAL REVIEW OF REVIEWS, February.

1. Diagnosis and conservative treatment of disease of the nasal sinuses. Harold Hays.

HAHNEMANNIAN MONTHLY, February.

7. Belladonna in the practice of otology. Joseph V. F. Clay.

8. An interesting case of mastoiditis. Gilbert J. Palen.

HAHNEMANN MONTHLY, March.

2. Suggestions to the general practitioner concerning acute middle ear suppuration. George W. Mackenzie.

NEW YORK STATE JOURNAL OF MEDICINE, March.

*8. Sections of the temporal bone. Dry specimens showing nasal accessory sinuses. Wm. M. Dunning.

*8. The entire Index Medicus for the past seven years catalogues less material upon anomalies of the facial nerve than would fill one ordinary octavo volume. The author found no specimen of inconstancy of the facial nerve. The recorded instances of misplacement of the facial nerve in its course through the temporal bone are:

(a) About five cases in an old French book, only one of which, and that the 18th century, is an example of any of the specimens under discussion.

(b) Five cases mentioned by Schwartz as exhibited at the German Convention in Carlsbad.

(c) The interesting specimen in the possession of Dr. Passmore T. Berens (its description quoted at length).

Dunning found one case that trephining at the level of Henle's spine would strike the sinus, and another in which it would go into the middle fossa. Pneumatic mastoids occur oftener in long narrow skulls.

ABSTRACTS.

CYSTOMA OF THE SWEAT GLANDS OF THE SKIN.

A gentleman, aged about 50, had noticed for a year the presence of a small swelling at the outer canthus of each eye. They had been slowly increasing in size, especially in the last three months. He suffered from acute rheumatism, the last time 20 years previously. On exertion he always sweated freely.

They are small cystic swellings close under the skin, which is tightly stretched and not movable over them. They measure about 6 mm. across and are very tense. The one on the right side seems to be unilocular, the left one is multilocular, not quite so translucent, feels somewhat hard, and at its outer part appears to be situated more deeply in the skin. They lie among some "crow's-foot" folds, and do not present on the lid margin nor on the conjunctiva, which is normal.

Microscopical sections were fixed in Zenker's solution.

The situation of the cyst, deep in the corium, and the character of its lining epithelium prove that it was derived from the body of the gland, not from the duct. The observation confirms a statement of Wintersteiner's, that cysts arising in the gland itself are multilocular, while those derived from the duct are unilocular. This tumor had not the characteristic marginal situation of cysts of the glands of Moll, and must therefore have been derived from the glands of the skin. Not improbably, the occurrence of numerous crow's-foot folds may have had something to do with its symmetrical development, by permitting the accumulation of debris, and so leading to obstruction of the ducts.

ADENOMA OF THE CARUNCLE (*Spiradenoma papilliferum cysticum*).

A lady, aged 77, had noticed a vascular, soft, flabby sessile growth was present on the left caruncle for 18 months.

"That the present tumor originated in a sweat gland is proved, I think, by the character of the epithelium; that it originated in the body of the gland, not in the duct, is shown by the dissimilarity of the two layers; since it consists essentially of a single cyst, though subdivided by the papillomatous proliferation, it seems evident that it was formed from a single tubule. The only other glands in the vicinity from which a tumor with approximately the same structure could arise are the glands of Krause, the ducts of which have also a double epithelium; in these glands, however, the cells of both layers are flat or cubical and similar, and the cases of adenoma of the glands of Krause which have been reported have no resemblance to the present observation. That sweat glands do occur in the caruncle is now generally admitted; according to Virchow they are modified in the same way as the glands of Moll."

The present case differs from an ordinary adenoma in consisting of a single tubule and in the papilla formation, and from a papilliferous tumor of the duct in its origin from the secreting portion of the gland.

ADENOCARCINOMA OF THE EYELID.

The specimen was from the upper lid of a woman, aged 53, who stated that a growth "like a sty" had been present for 10 years, and had bled occasionally; recently it had been increasing in size. The tumor sprang from the center of the free border of the upper lid, was fleshy in consistence, and showed a horn-like cup at its apex.

Microscopical examination is described and two sections shown.

True adenocarcinomata arising in sweat glands are of excessive rarity.

In the present case the proof of derivation from sweat glands seems to be unimpeachable. The coil-duct arrangement is confusedly visible in a portion of the tumor and the changes in the glandular tubules are not those of simple hypertrophy, but those of a true malignant transformation; from this area there is a direct continuity with the still more evidently malignant, widely infiltrating, parts of the tumor in the deeper tissues; the double lining of dissimilar cells, so characteristic of sweat gland tumors, is present in some of the tubules and transitional forms can be traced from this typical to the most atypical structure.

The amount of normal lid excised was not sufficient, and the direction of the sections was not suitable, to determine with complete certainty whether the tumor arose from the ordinary sweat glands of the lid, or from the glands of Moll; that the former in all probability is shown by the relatively superficial situation of the more typical portions of the tumor and by the fact that no eyelash follicles are present near this portion of the growth in any of the sections, whereas normally the glands of Moll are situated at the roots of the cilia. If this be so, the statement that the ordinary sweat glands of the lid have not a double lining must be too absolute, as such a lining was certainly present in this tumor.

There seems to be no authentic record of an adenocarcinoma of the sweat glands of the lid.—G. Coats, *R. L. O. H. R.*, July, 1912.

The Lymphatics of the Nose and Nasopharynx, Henry J. Hartz, Detroit, Mich.

Lymphatic glands form leucocytes, not from the blood alone, but in response to a physiological stimulation by the nutrient, afferent, lymph fluid.

The lymph vessels of the tonsils, three to five in number, penetrate laterally the peritonsillar tissue, the buccal pharyngeal fascia and the superior pharyngeal constrictor muscle; accompanying the internal jugular vein they reach the deep superior cervical gland. One or more lymphatic vessels from the tonsil take the direction anterior, and some-

times posterior, to the internal jugular vein to empty into one or two glands located under the posterior belly of the dyastric muscle and covered by the sternocleidomastoid muscle, which connect with the deep cervical glands.

The lymphatics of the nose and pharynx, the tonsillar ring, the teeth, the mouth, all anastomose with each other and with those of the other side of the body.

The nasal mucosa is directly connected with the tonsils by lymphatic channels. v. Lenhardt's experiments (injections) lead to the assumption that the tonsils are frequently infected secondarily in acute infection of the nose, the accessory cavities and pharynx.

The tonsils have the function of a lymphatic gland; they have a protecting influence against the micro-organisms ever present in the mouth and nasopharynx.

By subarachnoid injection in four babies André was able to inject the nasal meningeal lymphatic tract. The connection is by little canals crossing the ethmoidal cribriform plate. The territory injected seems to belong entirely to the olfaction field.

The ethmoid cavity contains fine meshes visible only with the magnifying glass. André "is making" experiments to discover if lymph communication exists between the ethmoid and the orbital cavities.

Fine lymph capillaries penetrate the thin bony plate between the maxillary sinus and the nasal fossa posterior to the nasal fontanelle.

Frequently infection passes unperceived and produces adenitis which manifests itself by symptoms of pressure; *e. g.*, by dysphagia, when the retropharyngeal group and the subeustachian gland are involved; by trismus, from the buccal glands of the cheek; and by torticollis when the deep cervical group under the sterno-cleidomastoid is inflamed; and by aphonia when an engorged tracheal gland presses upon the laryngeal recurrent nerve—as in carcinoma of the esophagus or larynx.

Secondary (infective) tonsillitis may be attributed to the nasal lymphatics in syphilis and after operations, especially when tampons are used.

—*Trans. Am. Acad. O. and O.-L.*, 1911.

The Nonsurgical Treatment of Exophthalmic Goiter. S. Solis Cohen (*American Jour. Med. Sci.*, July, 1912) holds that exophthalmic goiter is essentially a medical disease; 95 per cent. of the cases seen in practice should be treated as such.

The term exophthalmic goiter is unfortunate, as it probably leads to a belated diagnosis by the unalert physician who waits for the classical symptoms of an enlarged thyroid and bulging eyes.

The most prominent etiological factors are: (1) the congenital and usually hereditary predisposition of certain persons not only to exophthalmic goiter but also to disturbances of the autonomic system in general; (2) psychic disturbances, as emotions of an exciting or depressing character; (3) local determinants, such as are suggested by parturition, pregnancy, menstruation, lactation, ovulation,—all of which may be accompanied by symptoms of exophthalmic goiter.

A great aid in determining the proper course of treatment in a given case is obtained by noting the order of development or the relative severity of the cardinal symptoms. Although there are no definite basic data to classify the cases etiologically or pathologically, the above method offers the best clinical method upon which the treatment must necessarily depend.

No definite routine can be followed in the treatment of so complex a disease, and hence individualization is the keynote to the success in the medical treatment of this form of goiter.

Of the elements which can be counted on to give the best results in the medical treatment, Cohen places rest far and above all others. Under the term "rest" is included relief from worry and all other forms of mental disturbance as well as eyestrain and other possible sources of reflex irritation. The nature of the rest, the length of time for which it should be instituted and its intermission and resumption, should all be carefully supervised by the attending physician. The patient should be at rest in the open air as much as possible; bodily comforts must be carefully attended to. Next to rest, proper hygiene and attention to nutrition are of most importance.

As to diet, Cohen prefers food of a proteid nature; goose, broiled or roast beef, preferably underdone, is most suitable. As the patients thrive best on a minimum of starches and sugars, pastries should therefore be forbidden. Green vegetables are well borne and help to increase weight. Salt and vegetable acids are to be avoided; milk and eggs are to be given only in moderate quantities. There are certain patients who cannot tolerate the increased proteid diet and here again individualization plays an important part; the diet must be changed to suit the case.

Hydrotherapeutic measures are at times serviceable in the treatment, especially when the symptoms point towards a primary fault in the autonomic nervous system. Here alternate hot and cold douches, or applications, may be carefully tried. Gentle massage is also indicated in such cases.

In the medical treatment by preparations of the ductless glands, Cohen gives first place to preparations of the thymus gland, which he prescribes in doses of viii-xlv grains a day over long periods of time. However, certain indications must guide in the tentative selection of the organotherapeutic agent employed. For instance, if the blood pressure is constantly low (100), adrenal or pituitary preparations may

be prescribed over definite periods together with the thymus gland. Extract of the parathyroid glands is valuable at times and may be tried in doses of 1/10-1/2 grain. A preparation of the thyroid gland itself is very seldom indicated and Cohen warns against its indiscriminate use, especially by those whose experience with thyroid preparations is limited. He has found ovarian preparations of little benefit.

Intestinal antisepsis is undoubtedly a factor in alleviating certain symptoms of exophthalmic goiter. Cohen prescribes the use of hot water, 1 to 2 tumblerfuls 3 or 4 times a day, as an excellent eliminant. Salol, menthol and castor oil may be given at intervals, also a biweekly colon irrigation. Sodium phosphate, as recommended by Kocher, is also of service when given daily.

Local applications of iodine in saponified petroleum and applications of the high frequency current from an Oudin resonator are mentioned as topical remedies that may be tried in selected cases.

Cohen has had little experience with Beebe's and Rogers' serum and got no definite results in those cases in which it was employed. Rodagen, antithyroidin and thyroidectin also gave negative results.

Under proper medical care, one may reasonably expect a recovery in not less than 75 per cent. of the cases exhibiting Graves' syndrome, four-fifths of which will be permanent. Therefore, according to Cohen, it is the physician's duty to give his patient the opportunity to recover without risk or the danger of an operation of its sequelæ.

Indications for Tonsillectomy. Danziger (*New York Medical Journal*, June 1, 1912) gives the following indications for enucleation of the tonsils in children:

Cases of buried tonsils where the pillars and the plica tonsillaris envelop the tonsils almost entirely. Such tonsils are of no use as they will not take up bacteria with the ingested food, nor will they be able to empty their crypts in a secondary tonsilitis from nasal or buccal infection.

In cases of small atrophic tonsils which cannot be removed, partly on account of their size, a microscope shows large defects in the epithelium of the crypts, sometimes its complete disappearance.

In cases of suspected tuberculosis of the tonsils; unfortunately the chronic form of tuberculosis cannot be diagnosed clinically. Therefore, given an anemic child with tuberculous adenitis of the neck and abnormal tonsils, the tonsils have to be enucleated, as the tubercles are always situated deep in the tonsil underneath the epithelium of the crypts.

In adults, recurrent attacks of circumtonsillar abscess call for enucleation as the only guarantee against future attacks.

Malignant affections are selfevident indications for this operation.

To make the age of the patient an important factor for the choice of operation is not logical, as the microscope shows the existence of the

crypts at all ages, with the same production and diapedesis of lymphocytes, even if there is an increase of connective tissue.

That the total enucleation of the tonsils does not always accomplish the desired results has been shown by Finger, who has demonstrated that in quite a number of cases new lymphatic tissue may develop from the lymphatic tissue back of the tongue. As another drawback to the total extirpation of the faucial tonsils, we have to consider its deleterious effect on the voice, especially of singers and public speakers.

Nasal Accessory Sinuses, Treatment of Acute and Subacute Inflammation of. Although there are certainly many cases of this kind which upon the first examination present symptoms demanding surgical means for their relief, C. M. Miller (*Old Dom. J. of M. and S.*, Nov., '11) holds that cases of sinus inflammation should be more carefully treated medically than is now the custom, and the integrity of the nasal mucous membrane with its underlying bony structure preserved in so far as the condition present admits.

In the general treatment, rest in a position favorable to drainage of the cavity, provided the ostium can be gotten open, is most essential. He says that mercurial followed by a saline should preface the treatment, and the diet should be liquid. Administration of acetyl-salicylic acid proved helpful in many of the author's cases, and hexamethylenamine seemed on one or two occasions to reduce suppuration and hasten recovery. Diaphoresis with hot lemonade is recommended after the calomel and saline. Atropin and belladonna are sometimes valuable, but should be resorted to with great care because of the drying effect on the secretion.

Locally, the application by means of cotton swabs of a 2 per cent. cocain solution, followed by epinephrin, is best at first. This should be followed by the use of antipyrin in 4 per cent. solution to prolong the ischemia. Cocain should not be placed in the hands of the patient; where the surgeon cannot make the application, the drug should be used in a spray by the nurse or some one of the family rather than the patient. A spray of some suprarenal preparation in an alkaline medium may be safely used every two or three hours. [Nor should the patient know that it is cocain that is being used.—MOFFAT.]

After thorough contraction of the nasal mucous membrane, a swab should be used to clear the opening of the sinus or sinuses involved and the nose irrigated with warm normal saline solution containing a little sodium bicarbonate, taking great care not to force any fluid into the Eustachian tube. After this, a spray of menthol and camphor in an oily medium is of benefit. Mild suction by means of an exhaust bulb or the Brawley apparatus proved beneficial in emptying the sinuses and inducing a favorable local hyperemia. The use of the leucodescent lamp over the sinus was found to give comfort. Hot applications favored reduction of inflammation and hastened resolution. Cold or ice bags in this region the author considers contraindicated.

Irrigation of the sinuses is a difficult procedure, and in many cases quite impossible without removal of some portion of the middle turbinated bone. To make sure that the tip of the canula has entered the cavity, an X-ray plate should be made with it in situ. After the irrigation, either with normal saline or some mild alkaline solution, air should be blown into the cavity to dry it and free it from the irrigating fluid. Should such treatment not relieve the condition within a few days, surgery must be resorted to.

In subacute inflammations the treatment is much the same, except that in this class of cases the use of autovaccines is of the highest importance. Vaccine therapy is also useful in hastening recovery of acute cases, though the length of time necessary to prepare the vaccines (four days) makes it of little value at the time of greatest intensity of the symptoms. Where improvement does not follow the first injection of vaccine, repeated cultures should be made in the hope of finding the organism truly responsible for the condition. Injections are to be given every five days, though the interval may have to be prolonged a day in order to inject on the rise of the opsonic index. —Abstr. in *Hahn. Mo.*

The Value of the Leucocyte Count in Surgical Diseases.—By Herbert W. Hewitt, M. D.

The total counts alone are of emphatically little value; but it is upon the consideration and observation of the *relation* that the total differential counts bear to each other, that great assistance may be obtained in the diagnosis and prognosis of acute surgical diseases.

Surgery deals with general rules, and not with absolutisms, and there are exceptions to nearly all rules. The following statements, however, may be considered as general rules:

1. The total count is an index to the patient's resistance to the infecting organism.
2. The relative polymorphonuclear count is an index of the degree of the severity of the infection.
3. If we have a relative polymorphonuclear count ranging between 75 per cent. and 80 per cent., infection is probable; if between 80 per cent. and 85 per cent., infection is usually found; if above 85 per cent., infection is almost invariably encountered, and this regardless of the total number of leucocytes. In fact, some laboratory workers do not make use of the total count at all, but depend for diagnosis entirely upon the differential count.

CONCLUSIONS.

1. The laboratory findings must be correlated with the clinical to be of any value at all.
2. The total count alone is insufficient.
3. The differential count, *per se*, is of value in diagnosis, but of little value in prognosis.

4. The total and differential counts, when taken together and correlated with the clinical findings, are frequently of great value both in diagnosis and prognosis.

5. The negative value of the count is sometimes very useful in diagnosis.

6. The duration of the infection must be taken into consideration.

Counts are more positively diagnostic when taken early in the course of an acute surgical disease. Infection will frequently, when of long duration, overcome the patient's resistance and so vitiate the value of the count.—*Annals of Surgery*.

Ear Troubles Caused By Salvarsan Injections. Bourgeois (*Progrès Méd.*, Aug. 19, 1911) draws attention to the serious results to the auditory apparatus that may follow the use of salvarsan. These may appear from several days after the injection to a period of three months or more. The intravenous injections are responsible for the earlier manifestations of the trouble, the intramuscular injections for those occurring later. The latter are the most frequent, and from that point of view the intramuscular method is the more dangerous. The auditory nerve may be affected alone or with the other cranial nerves. The author quotes Bénario as showing that out of 126 cases the auditory nerve was attacked alone on 51 occasions. In 8 cases it was associated with the facial nerve, and in 15 cases the auditory trouble was bilateral. Of the 51 cases quoted, in 17 both branches of the nerve were affected—that is to say, both deafness and affections of the semicircular canals resulted. On 29 occasions the cochlear branch was attacked, and on five the vestibular branch. This latter is very rare in syphilis without arsenical treatment. As a rule, the premonitory symptoms are headache, buzzing sounds in the head, and vertigo. Deafness more or less absolute follows. Castex has noted a congested state of the tympanum, and in some cases ecchymoses, and the author believes middle ear lesions are more common than has been supposed. This action of "606" has been variously explained, some authors asserting it as toxic in character. The supporters of the remedy do not acquiesce in this view, however. They affirm it is brought about by the syphilis itself, which is in some way modified by the action of the drug. Ehrlich himself holds that the early manifestations of paralysis are in the same category as what is called the phenomenon of Herxheimer. A species of tumefaction of the syphilitic nodule is produced by the treatment, and this presumably compresses the auditory nerve in its passage through the bone. David, while accepting Ehrlich's theory in explanation of the earlier auditory affections, declines to accept it for the later phenomena, which, he says, are toxic in origin. Sicard, on the other hand, says that the paralyses are due to the liberation of a large quantity of endotoxin consequent upon the destruction of the spirochetes. As the author points out, no one theory fits all the cases, and the question

meantime must remain in abeyance. Intravenous injections are more to be recommended on the whole than intramuscular injections. Further, no patient suffering from any original auditory trouble ought to be treated. If the premonitory symptoms already detailed appear after a first injection, it is desirable to leave salvarsan alone and revert to mercurial treatment. In unilateral labyrinthine syphilis the author does not recommend salvarsan, but if the lesion is bilateral and severe, there is nothing to lose and everything to gain by the use of the remedy.

SOCIETIES.

AMERICAN INSTITUTE OF HOMŒOPATHY.

Next Meeting, July 6-12, 1913, Denver, Colorado.

AN OPEN LETTER TO THE HOMŒOPATHIC PROFESSION OF THE UNITED STATES AND CANADA.

The American Institute of Homœopathy meets this year in Denver, the Queen City of the West, from July 6 to July 12. There are in the United States and Canada approximately 15,000 homœopathic physicians. Of this number but 2,700 are members of our national organization—the oldest national medical organization in the United States. Never was there a time in the history of Homœopathy when it was more necessary for the protection of the individual homœopathic physician to have back of him a strong national organization than the present time. In every state in the Union restrictive and proscriptive medical legislation is taking place, whose chief object it is to limit the number of physicians in each state, and especially the number of so-called “irregular” physicians. That such legislation, which in many instances results in much good, may result in infinite harm to the homœopathic profession, there cannot be the slightest doubt. Up to the present time a comparatively small number of homœopathic physicians in the United States have made the fight in your behalf. The Institute is protecting your interests through its various committees on education, on legislation, etc. We, however, need the coöperation of every homœopathic physician in the United States and Canada.

With this end in view the admission fee has been reduced to one dollar for the first year, two dollars for the second year, three dollars for the third year, four dollars for the fourth year, and thereafter five dollars a year. In twenty-five years you become a senior member and further dues are not required. Subscription to the official journal, which contains the papers and transactions of the Institute and is issued monthly, is one dollar per year. You are therefore taken into the Institute for the small sum of two dollars, including one year's subscription to the Institute Journal, with access to all its transactions and scientific papers.

If you have never attended a meeting of the Institute, doctor, you have missed one of the greatest privileges of your life. Aside from the social features of the Institute, which bring you in close touch with the men and the women in the profession who are "doing things," there is the scientific aspect, which you will find of even greater value. The Institute is in session six days and I have never yet attended a meeting that I have not been repaid a hundred fold for the time and money spent. To me this week is a "postgraduate week," and I come home refreshed, full of new ideas and in infinitely better shape to take up my work.

It has been the effort of the undersigned to organize the United States and Canada in such way that every homœopathic physician not a member of the Institute will be personally solicited to become one. Should you not receive such solicitation, notify the chairman of this committee, or its secretary, Dr. Alden E. Smith, of Freeport, Illinois, and a proper application blank will be sent you. Your colleagues who know you will gladly endorse your application.

Will you not, doctor, join the Institute this year; attend the Denver session if possible and, if not possible, at least give us your moral support? The meetings usually alternate between the East and the West, and in all probability next year's session will be held in the East or in the Middle West.

JAMES C. WOOD,
Chairman of the Committee on New Members.

Cleveland, Ohio, March 26, 1913.

To the Members of the Homœopathic Profession.

My dear Doctors:—

The reports from the Council of Medical Education show that the efforts to secure pledges for propagandistic work have been encouraging. However it appears to some of us that we must resort to more effective and strenuous methods to secure the pledges from a large number of our physicians who have not yet subscribed. As the originator of this method for securing pledges from every homœopathic physician, namely, \$2 or more a year for five years, and among the early promoters of the propagandistic and evangelistic work, I am deeply interested in its ultimate success. The plan as presented has already awakened an interest all along the line and the interest *must* be *kept up*. How shall it be done?

It is very essential that all the journals should lend a helping hand, through their editorials, thereby indicating the importance of the work, and urge their readers to respond to the efforts being put forth for propagandizing and evangelizing. Would it not be well for the Council of Medical Education to give to the profession monthly reports of the results of the efforts obtained by the director, publishing the names of those who have given pledges, with the amounts subscribed, in all of the journals, and especially in the official journal of the Institute? Where the first appeal has failed to secure a pledge it should be followed by another more pronounced and if necessary repeated until the pledge is obtained. The "Spread of the Gospel" and "Team Work," editorials in the February and March numbers of the official journal of the American Institute of Homœopathy, are timely editorials and good results are sure to follow.

Though I cannot endorse all of the suggestions of Dr. Casseday, as stated in his "Plan to Place Homœopathy on the Proper Basis," etc., the doctor has advanced some very good and practical suggestions. Even if not altogether approved by the entire profession his suggestions, and those from others, show that there is an awakening all along the line for the advancing of homœopathic interests.

Much praise is due to Dr. W. A. Dewey, the secretary of the Medical Council and the director of the propagandistic work.

We are certainly awakening from our lethargy, the result of a long period of successes and triumphs, and it is necessary for us all to keep ourselves aroused and wideawake to the importance of the cause; thus working strenuously and unitedly with this aim in view the victory will surely be ours. The business methods adopted by the trustees of the American Institute of Homœopathy, the energetic President Hinsdale, ever on the alert for homœopathic interests, and the inauguration of the College Alliance of the American Institute of Homœopathy, all betoken a bright future for Homœopathy.

I feel confident that if this plan for securing pledges is vigorously pushed sufficient funds will be received to carry on the work and the coöperation of the entire profession secured. It is endorsed by the Institute, and the Council of Medical Education is fully and duly authorized by the Board of Trustees to carry on the work. We must not forget that it is a work of love that the director and subdirectors are all working without any financial remuneration. The pledges and moneys are collected by the Institute through the Board of Trustees;

these are the advisers as to the distribution of the funds thus collected, and we have confidence and faith that the funds collected are safely guarded, and that they will be economically and wisely distributed.

I think the efforts to stimulate us to greater activities and to spur us on in this important and vital propagandistic work are most gratifying; I am very optimistic as to the results if we all put our shoulders to the wheel and work with a determined effort to advance the interests of Homœopathy.

Yours fraternally,

H. F. BIGGAR.

BOOK REVIEWS.

A MANUAL OF ELEMENTARY ZOOLOGY. By L. A. BORRODAILLE, M. A., Lecturer in Zoölogy in the University of Cambridge and in Natural Sciences at Selwyn College. Cloth, octavo. 470 pages, profusely illustrated, \$3.75. London. Oxford University Press, American Branch, 35 W. 32d Street, New York. 1912.

The author is unique inasmuch as he introduces the student to the principal problems of this science by his treatment of the animals most often studied; he expounds theories after the facts upon which they are based. One general principle has guided him, says he: that the organism should be regarded as a whole. The essence of individuality is indivision, not indivisibility. "Properly to study any animal we must inquire why its structure is what we find it to be and how it has come into being." After an introductory chapter the study of the frog occupies four more; then the amœba, etc., are considered until chapter XI., which is devoted to reproduction and sex. Single animals or groups precede the final four chapters on mammalia, embryology, classification and evolution, and the animal in the world. There is an appendix of practical work and laboratory hints.

The author teaches that "it is probably more true to say that bacteria are neither plants nor animals" (instead of classifying them with the plants) "but a third kind of living being." Cellulose, a modified form of starch, is unknown in animals but is almost invariably present in plants; it comes nearer than any other character to giving an absolute distinction between the two kinds of organisms.

The typography, illustrations and paper are excellent, and the volume strongly bound.

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No. 6

EDITORIAL.

THE CHICAGO MEETING NEXT MONTH.

FOLLOWING the precedent of 1910 the American Homœopathic Ophthalmological Society will meet this year in Chicago instead of far west with the Institute. Chicago entertained the former society also at its eleventh and eighteenth meetings, in 1898 and 1905, under the presidency respectively of Drs. William R. King and Royal S. Copeland. Needless to remind our readers of Dr. Hallett's presidency the last time the meeting was held in the windy city.

President Shepard wishes to characterize this year's meeting, July 1st, 2d and 3d, by giving a prominent place to homœopathic therapeutics; a session will be given over to reporting such cases, and in order to ensure success not only is each member urged to contribute at least one case but to report its title to the Secretary before the meeting.

It is hoped that each case presented to the Society will be rigidly, of course impersonally, criticised so as to receive the endorsement of the society—if it successfully meets all criticism.

Is homœopathy applicable in ophthalmology? Let us prove it, concretely. It is our specific duty to do this. We all recollect Dr. Custis' brilliant cure of tubercular iritis half a dozen years ago; he associated Dr. William R. King with him to corroborate the diagnosis and watch the case.

Verifications are an essential part of the homœopathic system, but they should be scientific demonstrations, not mere assertions dependent upon the reader's or hearer's faith in one's word.

To be scientific, to be a demonstration rather than an assertion, every clinical report should be so full and clear that the hearer and reader will agree with the reporter in his diagnosis and will concede that the cure or relief claimed is properly attributed to the remedy and to nothing else. Care should be taken to mention all adjuvant treatment

and other change in environment, the duration of the symptom or disease, how soon after administration of the remedy it disappeared or improved and how long the cure had persisted at the time of the report. It would be well to indicate the symptoms which led to the selection of the remedy.

Homœopathy comes into play when the doctor decides to resort to internal medication. That is usually in, but not limited to, constitutional cases.

Who will submit the best clinical report, homœopathic, in accordance with this standard?

DR. CASSEDAY'S PUBLICITY CAMPAIGN FOR HOMŒOPATHY.

While the dominant school and, following that, a portion of the public press are repeatedly asserting that homœopathy is dead, what is homœopathy doing to meet the situation?

The Institute's Propaganda is stirring up the homœopathic profession; and now Dr. Casseday submits a plan, to be found upon another page, for systematically informing the laity what homœopathy is, what it has done and what it is doing. This seems practical and practicable. But we earnestly hope that it will be so systematized as to have some control of the general tenor of the speeches in order to avoid intemperance.

Homœopathy is now so well established that there is no necessity nor excuse for abuse of what others may do or think. As we desire liberty to think and act according to our convictions we should have charity for others, even if we do not agree with them. The days of vituperation in place of or accompanying argument are, we hope, past. Homœopathy is scientific medicinal therapeutics and its wonders are enough to excite interest and enthusiasm without going beyond the bounds of statements that can be substantiated. Every statement that is not capable of substantiation is a weak spot in the campaign. Since we claim that our art is the application of scientific medicinal therapeutics we should present it scientifically if we would win respect of our hearers and convert the ignorant and skeptic.

It should not be necessary to vilify the dominant school in order to set before the public the advantage to the patient of having a homœopathic physician who is possessed of a more complete and extended armamentarium than is the physician who is ignorant of the resources afforded by homœopathy, in order to suggest that it is not the homœo-

paths who have lost faith in the efficiency of internal medicine but those who have not known how to administer remedies homœopathically and therefore have been less successful.

No matter whether it is true or false that "the old school is adrift without a compass," there is no necessity of touching upon that. We have a compass and we will advertise that fact; there are enough passengers for both boats, and even if we could accommodate all we could not get all to patronize our line.

Saying that another is not scientific is no proof that I am scientific. In the light of modern scientific standards mere assertions of clinical reports instead of demonstrations can no longer be excused on the ground that they have been the prevalent style of clinical reports.

Just as the dominant school has stopped abusing homœopathy, do let us in the name of charity stop abusing them.

This must not be interpreted that the writer is any less loyal to nor has lost any of his faith in homœopathy.

The only homœopaths that will lose their homœopathy by membership in old school societies are those—and there are many—who are not homœopaths in brain, heart or practice despite their membership in homœopathic societies and institutions.

As Dr. Krauss says: "We must contend for homœopathy with work, not with confession of faith; with proof, not with compromise."

"Homœopathy will live when homœopathic institutions will be extinct; but homœopathic institutions will die, and the most ardent friends of homœopathy will say they should die, unless these institutions justify their existence by the only possible justification of their existence, by making homœopathy—the method of symptom-similarity—understood and practiced within the limits of its possible application throughout the length and breadth of the whole medical world."—JAMES KRAUSS, M. D., *J. of Am. Inst. of Hom.*, March, 1913.

"A grave responsibility resting upon us, and the one which perhaps is the most frequently neglected, is that, whatever one's private practice may be, once having accepted a position upon the staff of an avowedly homœopathic institution one is in honor bound to practice there according to Similia—or to make room for one who will. . . . Empirics and allopaths should not be the representatives of homœopathy."—JOHN L. MOFFAT, M. D., Presidential Address *Trans. N. Y. State Hom. Med. Soc.*, 1903.

RETROBULBAR NEURITIS CAUSED BY SPHENOID ABSCESS.

J. IVIMEY DOWLING, M. D., O. ET A. CHIR.,

Albany, N. Y.

BY common consent, and apparently as the result of much accumulated experience, the causes of optic nerve lesions have been attributed to exposure to cold, rheumatism, gout, syphilis and other general disease or drug toxemias. The treatments usually employed are the natural corollaries of such etiological factors and so it is customary to resort to free purgation, pilocarpine diaphoresis or the use of some of the salicylates, mercury, iodides or strychnine and in the toxic conditions the tobacco, alcohol or drug that is a causal factor is withdrawn.

All these measures are excellent, but every oculist of experience has observed that cases have failed to respond to such treatments and after a somewhat varied period the inflammatory condition has passed over into a state of progressive atrophy, after which the true etiology becomes merely a matter of interest, treatment is a matter of no avail and prognosis becomes a surety as certain as it is forlorn, and the patient faces a more or less speedy blindness.

Failures and dissatisfaction on the part of clinicians and other investigators have resulted in long continued study of the nasal accessory sinuses and their relations to the eyes in the hopes of discovering additional causes for obscure ocular affections. The anatomical studies of A. Logan Turner, Onodi, Holmes, Cryer and others have furnished the basis from which much information has been secured relative to the relation of sphenoid and posterior ethmoid disease to diseases of the optic nerve. The more recent work of Onodi, under title "The Optic Nerve and the Accessory Sinuses of the Nose," is replete with case records and furnishes abundant proof that these sinuses are more often the causal factors of optic nerve disease than is generally appreciated.

The purpose of this present paper is to furnish additional evidence of positive kind in support of the statement that sphenoid empyemas are much more frequent causal factors of retrobulbar disease than is generally considered.

The first case is that of Agnes M., age 19, a maid living with a patient who brought the girl for an opinion because she was rapidly going blind and had been informed that atrophy of the optic nerves existed and that no treatment could be successful. The girl had been advised to return to Ireland so that she might live among her friends after blindness should ensue. She presented herself for examination on April 26th of the present year, giving the following history: Previous general health good; occasional head colds, but of no great severity; no particular subjective evidence of nasal catarrh. However for several months she had experienced much headache on the vertex and in the occiput, also some ocular pains aggravated after use of the eyes, and the headache was becoming more continuous. Transient blindness occurred together with floating clouds (central scotomata) that obscured vision. Central vision at the first consultation equalled o. d. 20/200, o. s. 20/200 which would then disappear and subsequently be regained after a brief spell. The pupils were equal and measured about 2 mm. in diameter; they were slowly active to both light and accommodation. The apparent refractive state was o. d. $+1.50$ c. ax. $90^\circ = 20/70$, o. s. $+1.50$ c. ax. $90^\circ = 20/70$. This result being merely transient as the increased visual acuity was but momentary. The ophthalmoscopic examination was practically similar in both eyes, except for an extensive mass of opaque nerve fibers in the right eye, and revealed nothing more than spasmodic blurring of the optic nerve heads. There was no evidence of exophthalmos and no manifest muscular errors.

Examination of the nose revealed a general intumescence of the erectile tissues with great hypertrophy of the middle turbinated bodies which made impossible any probing of the sphenoid sinuses. Transillumination showed slight shadows of the frontal sinuses but the maxillary sinuses showed brilliant reflexes. Tests for the presence of pus were made according to the author's intranasal tamponade method; upon withdrawing the tampons they were found bleached at the posterior ends and at the end of each tampon was a good sized drop of viscid mucus. No culture was made in this case, but upon this evidence operation for opening the ethmoid and sphenoid sinuses was advised.

Three days later under ether both middle turbinated bodies were removed and ethmoid cells were freely opened. After this operation a purulent discharge was established and two weeks later under cocaine the sphenoid sinuses were trephined. This was followed by an even

freer discharge. Upon introducing a probe the sphenoid sinuses were found to be extensively necrosed. The subsequent treatment was conducted along the lines suggested by the author in previous writing and consisted in the use of intranasal long-fiber cotton tampons saturated in a solution of argyol, 40 grains to the ounce. At first this was the only treatment but as the parts healed the additional use of an alkaline douche was employed.

Subsequent to these operations the vision gradually improved until at the time of discharge from the hospital on May 27th vision equalled o. d. 20/40, o. s. 20/30. Headache and other subjective symptoms, together with the central scotoma, all disappeared. Further treatment by the author's method was continued at weekly intervals and the nose carefully douched by the patient at home. Improvement has continued and at the last examination, November 6th, visual acuity equalled o. d. 20/15, o. s. 20/15, without the aid of lenses, although correcting lenses as prescribed on September 27th are still tolerated, the correction being o. d. + .25 s. \ominus + .50 c. ax. 90° , o. s. + .50 s. \ominus + .50 c. ax. 90° .

The fields for white and red, as determined by my assistant, Dr. A. C. Worth, are normal in every way and there are now absolutely no central scotomata. The ophthalmoscope reveals nothing abnormal. Pupils are smaller and more active.

The above case represents a most satisfactory outcome and is an absolute cure, for the sphenoid sinuses have assumed a healthy state and the probe no longer reveals necrotic areas.

Onodi quotes Mendel as stating that: "The main characteristic of an optic nerve neuritis purely of accessory sinus origin is that it is *unilateral*." However he states as possible a double optic neuritis incident to sphenoid disease although double optic neuritis is usually believed to indicate some cerebral trouble particularly if accompanied with manifest changes in the optic discs.

The author's first case is one of double retrobulbar neuritis caused by right and left sphenoid and ethmoid empyemas, while the case about to be cited was one that might be considered as unilateral except for the fact that neither eye presented normal visual acuity and that in both eyes there was positive improvement in visual acuity after operation on only one side, namely that of the more affected eye. Therefore this case may be considered as one of those rather rare cases of double optic neuritis caused by unilateral sinus suppuration. Onodi cites the case of a boy 11 years of age in whom vision was reduced to 1/6 and

there was suppuration in the ethmoid and sphenoid sinuses; Goris opened these up intranasally. Symptoms of meningitis ensued but were temporarily relieved by opening into the middle cranial fossa and draining an accumulation of pus from under the optic chiasma. It is stated that the previous symptoms then abated and the visual power was uninjured, but on the fifth day the child died of meningitis.

The immediate improvement but final fatal issue in this case cited by Onodi is similar to the course pursued by the case about to be related, excepting that in the author's case the complicating factor was lateral sinus thrombosis and chronic mastoiditis on the same side as the sphenoid empyema.

The case history is as follows: Mrs. J. W. B., age 47, presented herself for examination on September 18th of the present year. She stated that since the previous January she had suffered continual pain in the right eye which had been unrelieved by various changes in glasses. During the previous week pain had occurred in the left eye and during the preceding three days a cloud had appeared before the right eye (central scotoma) and vision had then become generally misty. Visual acuity then equalled o. d. 5/200, o. s. 20/50. The right ear showed evidence of preceding suppuration but the tympanic cavity was then dry and the mastoid process insensitive. Ophthalmoscopic examination revealed only a transient blurring of both optic discs. The pupils were fairly active. The nose showed a hypertrophic state of the erectile parts and the large size of the middle turbinated bodies precluded any exploratory probing of the sphenoid sinuses. Tests by the author's method of argyrol tamponade seemed to reveal the presence of pus in the region of drainage for the sphenoid sinuses and posterior ethmoid cells.

On September 24th intranasal operation was performed under ether, the right middle turbinated body removed in toto and the ethmoid cells and sphenoid sinus opened. The walls of the sphenoid sinus were necrotic and pus was present in both the sphenoid sinus and posterior ethmoid cells. For a time improvement was uneventful and on October 1st visual acuity had increased to o. d. 20/50, o. s. 20/30; this visual improvement was retained until shortly before the death of the patient which resulted from a lateral sinus thrombosis complicating a chronic mastoiditis which necessitated a radical operation and opening of the lateral sinus down to the bulb from which a clot two inches long was removed. Subsequent to this operation the patient improved generally,

but finally on October 15th, or ten days after the last operation, she died of symptoms of cerebrospinal meningitis.

This second of the author's cases is of especial interest because while it illustrates the fact that retrobulbar neuritis may be due to empyema of the sphenoid sinus and ethmoid cells it also serves to emphasize the fact that frequently the mastoid of the same side may be affected; in the final analysis of this case it is the author's belief that the sinus thrombosis was secondary to the mastoiditis and not the result of the sphenoid or ethmoid empyema. Unfortunately an autopsy was not permitted so the case cannot be as fully recorded as is desirable.

In closing the author wishes to suggest the advisability of intranasal examination for all cases of optic neuritis, for even in those of toxic character sinus complication is often present and treatment according to the author's method will aid materially in effecting a cure.

It is also desirable to quote Reber who says that: "when it is considered that accessory sinus disease is frequently latent and eludes the most searching study on the part of the rhinologist, the ophthalmic surgeon should be prepared for the disappointment that goes with a negative report. Moreover, the rhinologist is frequently permitted but one opportunity to examine such patients and is in no wise responsible for the conditions he does or does not find."

It is in just such seemingly negative conditions that the author's argyrol tampon method may be used for its diagnostic value in determining the presence of infection and, furthermore, suggesting the possible source of the infection according to the part of the tampon that may be bleached after remaining in situ for a period of ten to twenty minutes. For completeness the following quotation from a previously published article is appended:

"Suitable sized cotton tampons are placed in the middle meatus reaching from the anterior portion of the nares to the choana posteriorly. These tampons should be saturated in a fresh solution of argyrol forty grains to the ounce. Providing the middle turbinated bodies are not too greatly hypertrophied the tampons should be placed between these bodies and the septum and well up against the region of the ethmoid cells. In case the middle turbinated bodies are of great size then the tampons should be placed as nearly in this position as possible. In the latter instance relief is obtained, but not to the same degree as when possible to insert the tampons higher up.

"The benefits are due to the effects of induced capillary attraction

which drains the ethmoid cells of retained secretions and depletes the turgescient tissues. The effects induced are hyperemia of the conjunctivæ, sneezing and flow of mucus.

"The changes noted upon the tampons are decided and of positive value in demonstrating the presence of infection, for while the tampon is originally dark brown or blackish in color, upon its withdrawal it will be found bleached in spots or throughout its entire extent. The bleaching is indicated by yellowish spots upon the tampon, and in some rare instances the tampon is absolutely decolorized. These argyrol tampons may be placed in a healthy nose—that is, in a non-infected nose—and remain for a full hour without decolorizing. The finding of this reaction is surely an indication of infection, and cultures taken after employing the method will discover the variety of germs present. Those most frequently present are staphylococcus or streptococcus in pure cultures or of mixed variety.

"The technique to be followed after withdrawing the tampons is thoroughly flushing the nares and cleansing them of all secretions. The method may be either by postnasal or intranasal douching by means of the ordinary postnasal curved tip or Teets' anterior nasal tip. In lieu of that a douche obtained by means of compressed air is satisfactory. After thoroughly cleansing the nasal chambers a bland oil may be employed, although in some cases the use of oil seems to prove too drying and militates the usefulness of the tamponade treatment.

"*The frequency of treatment is governed by the effect obtained and varies from every day to once in two weeks as improvement is secured. The first treatment is frequently without marked results and in such cases they should be repeated daily until benefit is noted, when the interval should be lengthened. Oftentimes the first improvement is purely subjective, or an aggravation of all symptoms may first ensue. If persisted in the effects sought will finally be obtained.*

"Absolute failure of the tamponade method does not prove its inefficiency, but is due to the fact that the middle turbinated bodies are so hypertrophied that results are impossible until intranasal surgery is instituted. Subsequent to this procedure the argyrol tamponade method will prove successful.

"A point to be noted is the fact that many patients will absolutely deny the existence of any catarrhal state of the nose, and as they

understand it they do not so suffer; objective examination will reveal merely hypertrophied middle turbinated bodies or turgescence of the erectile tissues, but the test with argyrol tampons will prove the presence of infection, and what I term residual infection of the sinuses will be discovered.

"The value of this procedure is positive, for the reaction seems to be obtained only in the presence of pathogenic organisms; this was shown by Dr. Charles E. Terry, of Jacksonville, Florida, as reported by him in an article read before the Florida Medical Association and reported in their Transactions for the year 1909."

In summing up it is well to state that these cases are offered in evidence that sphenoid and posterior ethmoid empyemas as causes of optic nerve disease are frequently overlooked.

It is suggested that in all cases of optic nerve affections the nose be examined for possible complications. The author also wishes to emphasize that it is his opinion that **no negative report upon the state of the nose or condition of the sinuses should be made until a test has been instituted by means of intranasal argyrol tamponades**, for their use will frequently reveal hidden infections that would otherwise escape the observer's attention and the presence of which may be an active agent in causing not only optic nerve affections but metastatic inflammations of the entire uveal tract.

116 Washington Avenue.

When Gabriel blows his horn will we still be removing alleged adenoids with the site of obstruction in the anterior nares?—*L. I. Med. Jour.*

The anomalies of science are always the index finger of nature pointing to a new door.

Tyrosin is the propoison of protein from which phenols (carbolic acids) are produced by bacteria. It is associated with cystin and tryptophane, other propoisons of protein that are missing from gelatine.

The term **proteid**, in the interest of clear thinking, should be abandoned: it had become so indefinite in meaning that a few years ago American physiologists and chemists dropped it from their nomenclature and agreed to use the word **p-r-o-t-e-i-n** exclusively.

AURAL SPADES AND ANGULAR CURETTES.

HOWARD P. BELLOWS, M. D.,

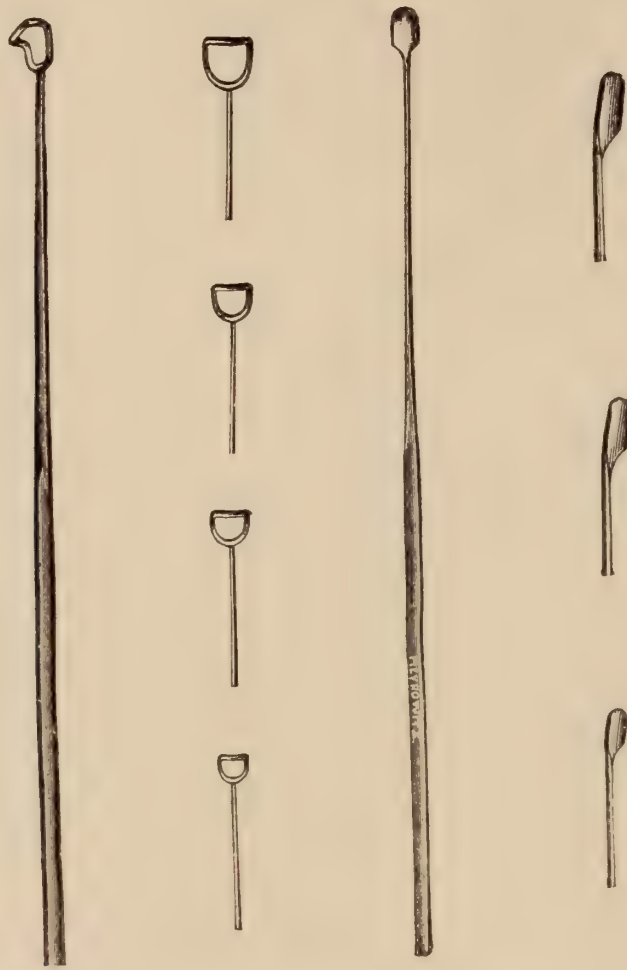
Boston, Mass.

IN the removal of large and dry masses of impacted cerumen from the ear the first step is usually the careful separation of the mass, at one point on its circumference at least, from the walls of the auditory canal. This may be for the purpose of better admitting some solvent solution which it may seem advisable to employ to soften the mass before any further attempt at removal, or it may be to gain a point of advantage for the entrance of water behind the body in immediate syringing without preliminary softening, or it may be the beginning of a process of gentle separation of the entire circumference from the canal walls preparatory to immediate extraction of the whole mass, in its dry state, by seizure and traction with suitable forceps.

In any case the first step is the same and calls for an instrument which is sufficiently thin to be insinuated into the merest chink between the ceruminous mass and the canal wall and which at the same time is sufficiently firm to permit a considerable degree of pressure upon the mass to separate it from the wall. Especially is this the case in the condition known as keratosis, where solvents and syringing are of comparatively little aid in the separation and removal of the resisting mass. Aural spoons and all instruments of that class are too thick and clumsy to perform this service, and most of us have relied upon the ring curettes of Buck as best adapted to the purpose. In most cases these will probably always be regarded as the safest instruments for this use in inexperienced hands, but in many cases they prove inadequate because either too blunt or too flexible.

My dissatisfaction with the ring curettes because of these two objections led me to devise the so-called aural spades to meet this need and, in their proper place, I have found them very efficient and satisfactory. It must be remembered that they are *not* cutting instruments, and they should never be made sharp enough to cut. They are also not meant to dig with, in any ordinary sense of the word. They are to be used only in experienced hands, under perfect illumination, to conform with their curve to the inner circumference of the walls of the

external auditory canal and to gently separate from these walls adhering masses of dried cerumen, hardened secretions, scaly exudations, epithelial masses or foreign bodies. They are made in three sizes. The instrument of the smallest size I find most useful in fine work deep within the canal, especially in separating and lifting away small scales of exudation which sometimes adhere obstinately to the surfaces, even after preliminary softening, and require deft hands in removal.



The angular cures, in blunt form, are devised to supplement the ring cures of Buck and facilitate the removal of softened or detached masses of cerumen or exudation in the ordinary cleansing of the canal walls. They are made in four sizes, with a thin blunt edge; I have come to use these oftener than the Buck cures in daily routine work and find their use the more agreeable of the two to my patients—but they are intended to be used in conjunction with and not to supplant or supercede the ordinary ring cures.

The angular curettes are also made, in two sizes, with a sharp cutting edge for operative work in the removal of granulation or polypoid tissue from any point upon the walls of the external auditory canal.

220 Clarendon Street.

Bone Splint Operation for Nasal Deformities. A curvilinear incision, convexity downward, is made from the inner extremity of one eyebrow to that of the other, extending to but not through the periosteum. With a special sharp elevator the skin and subcutaneous tissue are elevated over the dorsum and sides of the nose, and in some instances for a considerable distance beyond the nose under the cheeks. The semilunar flap made by the first incision is then lifted up and a short transverse cut made through the periosteum over the nasofrontal process; the periosteum above this incision is elevated for about one-fourth of an inch. This wound is covered with sterile gauze and we proceed to the second step in the operation, the resection of the rib.

A straight incision four inches long, including the periosteum, is made directly over the ninth rib. The rib is then shelled from its periosteum by means of a curved elevator and two inches of the bone removed with the costotome. This section of the rib is then split in its transverse diameter and from one of the halves (usually the outer) all of the medullary tissue is scraped with a sharp curette. This piece is shaped to suit the deformity, and in the following manner is slipped into the place previously prepared for it in the nose. The semilunar skin flap is held upward out of the way with a tenaculum, the strip of bone is introduced and the end pushed nearly to the tip of the nose. The upper end is passed through the slit in the periosteum and anchored in contact with the frontal bone. We now observe whether or not the deformity has been corrected; if it has not, one or two strips of bone are superimposed on the first.

The wound is closed with horse hair sutures and a sterile dressing applied. If all is well this dressing is not disturbed until the seventh day, when the sutures are removed.

The action of the bone strip in reducing the deformity is that of a lever, the short arm of which is anchored under the periosteum. The naso-frontal process or nasal bones act as the fulcrum and the long arm of the lever which reaches nearly to the tip of the nose does the work of lifting up the depressed bridge. In doing this a wedge-shaped cavity is created beneath the bone-graft which immediately becomes filled with a blood clot. Upon the sterility of this clot and its subsequently becoming organized depends to a large extent the success of the operation.—Carter, *Am. Med.*, Nov., 1912.

PHOSPHORUS IN RETINITIS.*

HERBERT D. SCHENCK, M. D., O. ET A. CHIR.,

Brooklyn, N. Y.

CASE I.—In 1904 at a meeting of the Am. Hom. O., O. and L. Society I reported the use of phosphorus for central retinitis in an otherwise healthy man of 39. He had noticed after a ride in the sun that there was a cloud “like dust” before his left eye, and that the perpendicular lines of objects had rather sharp curves inward at several points and the horizontal lines curved downward at the ends. He had some fatigue of the eyes, slight photophobia and occasional pain in the temples which was more fatigue of the head than actual pain. The external conditions and the right fundus were normal. In the left macular region there was a square spot of opaque retinal tissue with a few dots and dashes extending into the retina, elsewhere the left retina and optic disk were normal. O. d. = 6/6, o. s. = 6/12 with difficulty. O. s. with a + 50 c. ax. 90° V. = 6/12.

Phosphorus was used four times a day from May 21st to June 27th, and saccharum lactis was given three times a day for ten days, followed by phosphorus three times a day for a week. Nothing but saccharum lactis was given after July 17th.

The symptoms in this case were the poorly defined central scotoma which later became a thin central veil which he called dust, and the curves in the perpendicular and horizontal lines. These disappeared in the reverse order in which they originally appeared.

In this case the subjective symptoms upon which the prescriptions were based were:

- (1) Dust before the eyes.
- (2) Fatigue of the eyes and head even without much use of the eyes.

The clinical symptoms were the central retinitis with the symptoms described above.

CASE II.—March 14, 1912, I first saw a member of the Kings county society who complained that he had difficulty in seeing in accommodation. His distance and reading glasses had been used without change

*Read before the King's Co. N. Y. Hom. Med. Society.

since 1901; an examination in 1905 had shown no change possible from those prescribed in 1901. Reading had become increasingly difficult for six months past. Recently he had noticed that the columns on the printed page were not straight. After use in accommodation there was some pain in the left eye. There was a central scotoma causing him to look to the right or left about six inches to see objects. At that time his vision in the right was $5/60$; with a $+ 2$ s. $\ominus + 1.50$ c. ax. 180° V. = $6/9$ with difficulty. In the left $6/60$; with a $+ 2.25$ s. $\ominus + 1.50$ c. ax. 180° V. = $6/12$ with slight difficulty.

This case had suffered for many years with chronic left side rhinitis, and his sense of smell was lost and taste diminished on that side. He also suffered from cystitis and some chronic prostatic trouble, with varicose ulcers also of many years' standing. Several times during the summer and fall he had taken intercurrent doses of ergot to relieve his prostatic condition. His temperature has been $1\frac{1}{2}$ to 2 degrees below the normal for a long time. His appetite and digestion, however, are fairly good.

From March 20 to July 20 he was treated with suction and release on the left eye, twice a week for five minutes. On April 2d phosphorus 5 every three hours was prescribed. This was changed on April 25th to phosphorus 6x and this to occasional doses of phosphorus 30 on June 24th. On August 2d mercurius corrosivus 3x was given for a few days to relieve some urinary conditions.

He had symptoms of soreness to the touch of the left eyeball with various hallucinations, as seeing a bouquet of flowers, with micropsia in the left eye. On dilating the pupil July 29th the macula was found to have a faint red ring in the center. The perpendicular lines still remained curved. His vision with the same glass on September 14th was $6/12$ with difficulty in the left eye.

After bryonia had failed to relieve the soreness to movement and the feeling as though the eye would fall to pieces, arnica 6x was prescribed which relieved the soreness.

The pupil on being dilated, October 17th, showed four or five yellowish dots in the macular region surrounding the red ring noted July 29th. The vision at this time with his glasses was $6/15$ with difficulty in the left eye.

On November 6, 1912, phosphorus θ was administered, one saturated cone being taken four times a day. The curves in the perpendicular lines continued. His left vision at this time was $6/22.3$. The

phosphorus was continued until January 15, 1913, when the pupil was again dilated and the dots found in November had almost entirely disappeared, leaving only the red crescent.

On March 5th after dilating the pupil there was nothing to be found in the left macular region save the red crescentic ring noted when the pupil was first dilated in July, 1912. The other symptoms have continued, and his vision has remained since November at 6/22.3 with his glasses.

This was apparently a case of senile retinal degeneration. Phosphorus was prescribed on the subjective symptoms of:

(1) Fatigue and soreness after use.

(2) The clinical symptoms of yellowish dots covering the macular region, together with the curved lines which were somewhat similar to those of the former case.

75 Halsey Street.

Radium in Ophthalmology. If one brings a sufficient quantity of radium in contact with the closed eye, the temple, the vault of the skull or the occiput, a sensation of light will be produced. The radium rays do not act on the retina nor visual purple; the rays have no refracting power, so that no image is thrown on the retina; the beta rays, the most active, do not reach the retina, being absorbed by the media of the eye, hence we conclude that the radium emanations act by fluorescence of the refractive media of the eye and by direct irritation of the cortical visual center, producing an increase of visual power. The diseases to which radium can be applied successfully are external, of the eyelids, cornea and conjunctiva. It may be applied naked or filtered, but bearing in mind its powerful caustic effect, in all cases except epithelioma it should be filtered through tin, lead or aluminum. Rodent ulcers, angiomas and epitheliomas of the lids yield readily. A case of sarcoma of the brow which melted away under treatment is recorded. Trachoma and pterygium are greatly benefited or cured. Lupus of the conjunctiva and severe corneal ulcers offer promising fields of treatment. The analgesic action of radium has been frequently noted, especially in neuralgia.—G. Sterling Ryerson, *Ophthalmology*.

HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

DEPARTMENT EDITOR, PHILIP RICE, M. D.,

San Francisco, Cal.

Materia Medica Notes.

PHILIP RICE, M. D.

Kali iodatum. The most striking symptom of this remedy in iritis is a high degree of inflammation with a contracted pupil *which even the strongest solutions of atropin do not modify*; an absolutely *unyielding iris*. This symptom has been verified by us time and again in severe cases of iritis. Other symptoms of the remedy in this condition are very similar to mercurius, *i. e.*, the usual nightly < of the pains, the syphilitic base, bright and angry looking ciliary injection, cloudy aqueous, more or less acrid lachrimation, and < from heat. It follows well after mercurius. In fact, when the latter seems well indicated but fails to work kali iodide will invariably produce a favorable effect.

Staphisagria. This remedy is also frequently called for in iritis with a syphilitic basis; probably more often indicated than prescribed. The one characteristic symptom is a *bursting pain in the eyeball, temple and side of the face*. Bursting pain in the eyeball is a symptom found under many remedies, but under this remedy it is as severely felt in the temple and side of the face as in the eye. This is a keynote symptom. Another equally striking is constant lachrimation while there is a sensation as if the eyeball was very dry. The lids will almost invariably show signs of previous inflammation of the ciliary and meibomian glands; or at least there will be a history of styas, etc.

Under *asafetida* we find the symptom of actual dryness of the eyeball in iritis, with burning and boring pains in and around the eye, < at night, > by heat and pressure. The pains are frequently accompanied by numbness of the parts affected. Pains dart from within outwards. (Aurum the reverse.)

Duboisia.

R. W. HOMAN, M. D.

My attention was first attracted to this remedy several years ago by Norton's Ophthalmic Diseases and Therapeutics and since then I have prescribed it frequently and find it a most useful remedy. The cases in which I have used it with the best results might be called subacute belladonna cases. That is, it seems to give better results in subacute cases of a good deal the same nature as those for which we would prescribe belladonna in the acute stage. I haven't verified all the objective and subjective symptoms mentioned by Dr. Norton but I have repeatedly verified the following: "Dilatation of the pupils. *Disc red*

and outline indistinct. Fundus of the eye very hyperæmic. Eyes feel tired, as if overworked." Often an individual comes in and says he is afraid he needs glasses for his eyes get so tired when he reads, especially in the evening. Or if he is already wearing glasses he thinks he needs his lenses changed. We all have such cases, and on looking them over if we find the refraction normal, or the lenses correct if the patient is already wearing glasses, if we find the retina hyperæmic and outline of optic disc indistinct duboisia will relieve. The remedy is still better indicated if the pupils are slightly dilated. I use the 3x trituration tablets.

Euphrasia.

J. B. GARRISON, M. D.

Mrs. G.: Coughs only during the day. Coughs until a little is raised. Cough produced by tickling in larynx. Cough rattling. Expectoration, thick, yellow.

This patient had been afflicted with this cough for several weeks. She had a sensation as if there was a hair in the throat. Occasionally there was a free discharge of thin, watery mucus from the left nostril, especially when bending the head. Case was seen first on February 21st. Euphrasia 30th in water was prescribed every two hours. On February 26th the cough had almost entirely subsided and the medicine in the same potency was continued at intervals of three hours. On March 12th she came to the office for another condition and said that the cough was all gone.

Apomorphine tablets gradually change from their normal grayish tint to a dark green color; this is a fair criterion of quality—tablets which have turned dark in those (interior) portions protected from the light should be discarded. Apomorphine is delicate and will surely through the action of light and oxygen lose a considerable part of its peculiar power. Different lots vary: one may be practically worthless in six months, another possibly may prove practically normal after ten months.

Pilocarpine in Deafness. A man, aged 33, postscarlatinal discharge from both ears for 22 years with fairly good hearing until, after typhoid fever a few months previously, he could hear nothing. Heard only with a trumpet to the right ear. Both drumheads were then found mostly destroyed, the ossicles bound down by adhesions. After a number of hypodermatic injections of pilocarpine both ears heard so well that he obtained a position; can hear a slightly raised voice at ten feet with the left ear and fourteen with the right.

According to Bacon the best results have been obtained from pilocarpine in sudden deafness due to syphilis. It should be given hypodermically and the patient put to bed for two hours after the injection. —Gorham Bacon, *N. Y. Med. J.*, vol. 66.

JOURNAL CLINIC.

Keratitis Ulcerosa Chronica.

B. G. CLARK, M. D.

J. F., a scrofulous young girl, for three years most of the time, could not use her eyes for study, any use made them worse. Examination showed several ulcers of both corneæ, conjunctivitis, photophobia. After a year, once a week at a clinic, under dionin locally and iron internally she had made no improvement; she was now a large girl, 13 years old, light complexion, feet sweat.

The vision was o. d. 8/200, o. s. 20/100; glasses gave quite some relief: o. d. 2.25 c. ax. $15^{\circ} = 20/100$; o. s. — 1. c. ax. $15^{\circ} = 20/100$.

There was excoriating muco-purulent discharge from eyes and nose.

R. Feb., 1907, Calcareæ carb. 30, 4 t. d. for a month, then night and morning.

Oct., 1908. Improvement has been continued, returned to school after a month. Now in good health. R. v. 8/200; with — 1.50 c. ax. $25^{\circ} = 20/70$. L. v. 20/100; with — 1. c. ax. $15^{\circ} = 20/70$. Two maculæ on the right and one on the left cornea prevented better correction.

April, 1913, she is well and strong, and has been so, with no return of eye trouble.

Scarlet R. Salve.

G. W. McDOWELL, New York.

I have used this with marked benefit in two mastoid cases of long standing where, on account of cholesteatoma, there was recurrence of a crusty formation in an otherwise healed wound cavity.

In another case, chronic suppuration for which I did an ossiculectomy, this salve has had no effect. There still remains a slight amount of moisture in the attic with no tendency to epidermisation.

Five Cases of Keratitis.

DR. VRIESE.

Case I.—Relapsing keratitis with scrofulous ulcerations since sixteen years old. Had been treated locally without any regard to the general condition of the patient, with iodoform, cocain and atropin.

October 19th he had gone to a public clinic, almost total blindness having set in. Here they scraped the cornea and then subcutaneous injections of sublimate were made. Later on poultices of linseed were applied and subcutaneous injections of pilocarpin; a hunger-treatment was also prescribed. Finally the patient was dismissed as incurable.

April 13th he came to Dr. De Vriese.

The prominent symptom was photophobia of high degree, which

was diminished by the use of conium and belladonna; hepar was given for his constitutional ailment. Mercurius biniod. and aurum then produced a relative cure. There is still a pretty large spot before the pupil of the right eye and Dr. De Vriese thinks of restoring sight through the formation of an artificial pupil. He criticised severely the withdrawal of nourishment in a patient already emaciated, who particularly needed good nutrition.

Case II.—This man, though suffering from a strongly pronounced astigmatism, had yet become a soldier. While in service there developed interstitial keratitis. He was sent to the military hospital where, in spite of his defective nutrition, he was put on a quarter ration.

First there was prescribed, for some unknown reason, a lotion of chininum sulph., but the case only grew worse. Then hot compresses, atropin and iodium, were used, but the aggravation increased. To his ailment now was added keratoconus, but this did not seem to receive any consideration as increasing doses of atropin were given. Finally he was discharged with the declaration that he had received as much alleviation as was possible.

Dr. De Vriese gave the following treatment: A compress was applied, the eye was massaged morning and evening with yellow ointment and eserine was instilled. Strengthening nourishment. Internally sulphur was administered, then atrop. sulph., hepar, aurum and arsenicum. In this ailment relapses are apt to appear, but he has had none. The man is fully healed; his vision is excellent, far better than when he became a soldier. The astigmatism has disappeared, the cornea has drawn back. The left eye is normal, except the center where there still is a very weak halo.

Case III.—A six-year-old child, son of a syphilitic father, suffering from hereditary syphilis, exhibits scrofulous ophthalmia with specific ulcers on the right eye and a cataract on the left. The child was entirely blind and had been given up by a number of allopathic specialists as incurable. At present his cornea is clear, the infiltration has disappeared, so that the cataract can be plainly seen. The child can count the fingers at a distance of fifty centimeters (eighteen inches) and can walk about on the street by himself. The treatment was the same as in the last case. As constitutional remedies he received hepar and aurum.

Case IV.—In this case, a patient of sixteen years, the characteristic symptoms were less plain. He is now almost perfectly cured; there remains a cicatrix in the cornea.

Case V. The fifth patient, an old man in the hospital of incurable blind persons, is inconsolable because through homœopathic treatment by Dr. De Vriese he now sees so well that he is afraid he will be sent away from the hospital.

All of the four patients, Nos. 1, 2, 3, and 4, had been declared incurable and had been discharged from hospitals and State clinics on that account. They were treated by very eminent physicians, familiar with all the ophthalmic remedies.—*Journal Belge d'Homœopathie.*

How to Avoid Taking Cold.

RICHARD ELLIS, M. D.

"When the nasal mucous membrane is first congested, and one feels he is 'taking cold' let him bend the body forward (as in picking up a pin from the floor) and strain gently till the face is red, then (in the erect position) try to breathe through the partially occluded nostrils; repeat this process till the nostrils are freely open. Of course one should exercise and take hot drinks till that chilly feeling disappears, but that does not drive away the nasal congestion which so often introduces a severe cold. This new method of avoiding 'colds' by bringing on forced nasal hyperemia, and following this by patient nasal respiration till the nostrils are freely open, 'sounds silly,' but after three years of practical experience, I have decided to publish this brief statement."—*Med. Rec.*

A Method of Securing Catgut on the Needle. Dr. F. H. Jett, to avoid needles becoming unthreaded, threads the needle down the catgut for about four inches. The gut is then untwisted about one inch from the end which is through the needle, and kept untwisted by giving it a sharp bend at the untwisted point. (In case the catgut is small, or cannot be untwisted, it is well to flatten it with a smooth-jawed forceps.) The point of the needle is then passed through the gut at the untwisted point, dividing it in two equal parts. The long end of the gut is then pulled, bringing down the catgut where divided over the needle to the eye of the same. Then a jerk on the short end of the gut brings it over the end of the needle and the tie is complete.

In case a large, sharp-cutting needle is used, it may be necessary to modify this by making a hole in the catgut with a round needle, and then push the eye of the needle to be used through this hole in the catgut. Thread the needle with the long end of the catgut and complete as before.—*Surg. Gyn. and Obst.*, Aug., 1912.

Tell your patients to **disinfect the knife or needle**—before extracting a splinter, opening a blister, fester, etc.—by either passing it through the blue part of a (gas) flame or by dipping it into alcohol and setting the latter on fire, the butt of the needle had better be set into cork, for a handle, or held by forceps.

CURRENT LITERATURE.

DEPARTMENT EDITORS.

WM. McLEAN, M. D.,
New York.

FRANK O. NAGLE, M. D.,
Philadelphia.

THE AMERICAN JOURNAL OF OPHTHALMOLOGY. Feb.

*1. Keratoconus and ectopia lentis. (Report of a case presenting both conditions in both eyes.) J. F. Shoemaker.

*2. Extraordinary alterations in the corneal epithelium of a glaucomatous eye. Adolf Alt.

3. The thiocyanates in the body fluids. B. R. Le Roy.

*1. Dr. Shoemaker presents his findings in the case of a woman, aged 27, who had keratoconus and ectopia lentis in each eye. The radius of curvature was estimated to be about 5.5 mm. in the right eye, while the left was about 3.5 mm. Inspection of both eyes showed a marked conical condition. Both crystalline lenses were displaced downward, leaving a little less than half the pupillary area aphakic. The patient's vision with correcting lenses was o. d. 18/19 and o. s. 18/75.

*2. A glaucomatous eye which had been blind was removed to give relief from the pain.

The cornea contained on its surface a milky looking thickening, reaching from the corneoscleral margin toward its center. The history of the case is lacking, but a microscopical study of mounted specimens of the cornea gives evidences of newly formed fibrous tissue between the epithelial and Bowman's layers. The appearance is that of a strongly thick and fibrous pannus or connective tissue which has grown into the cavity of a very large epithelial vesicle.

ANNALES DES MALADIES DE L'OREILLE, DU LARYNX, DU NEZ ET DU PHARYNX. Fevrier.

*Etude sur la structure de la mastoïde et sur le développement des cellules mastoïdiennes. Influence de la constitution de la mastoïde sur l'évolution des suppurations antro-cellulaires.—Jules Mouret.

*This masterly paper, presented before the French Congress of Oto-Rhino-Laryngologie in May, 1912, occupies virtually the whole of this issue. It is illustrated by twenty-three plates showing thirty bones.

The compact layer surrounding the antrum he would call the cen-

tral cortex; after the consolidation of the temporal bone this is in its middle around the tympano-antral cavity and its dependent cells. Mouret considers "sclerous mastoid" an improper term because that term implies a pathological idea; anatomically it is not logical. Such bones should be spoken of as of the compact or eburnated type.

In very pneumatic mastoids suppuration is abundant and spreads rapidly through the bone and beyond it, even to the dura or periosteum. It may be most virulent in a remote deepseated cell. In these and when the cells are thinly scattered pain gives warning for an early operation.

The best bone if one has to have an antral suppuration is the compact mastoid with cells in the external wall of the antrum.

In the nonpneumatic suppuration localizes in the antral mucosa; there may be, as in the pneumatic, rapid and fatal complications by propagation to the interior of the cranium through other channels.

Probably the most dangerous mastoid suppuration is that in the mixed type with few aberrant cells in the heart of the mastoid tissue. As in the compact type the symptoms here manifest themselves with difficulty; the dangers of retention are greater than in the pneumatic type because the aberrant cells communicate with the antrum and each other only by long and narrow canals; so the operator who does not open up very largely risks leaving a deep infection more dangerous because unsuspected and near the cranial cavity.

Chronic otorrhea is so often found associated with or localized in the compact mastoid because in that the symptoms of an acute antritis are but little marked and it becomes chronic.

If the mastoid wound is closed, with a drain, there will be no disgraceful depression left behind the ear; there is a tendency for new mastoid bone to be formed of the same type as its primitive constitution, even if very largely operated.

ARCHIV FÜR AUGENHEILKUNDE. Feb.

1. Analytische Untersuchungen ueber die Fluoreszenz der menschlichen Linse und der Linse des Rindes. Dr. A. Vogt.

2. Biochemische Veränderungen im Kammerwasser bei akutem Intoxikationen durch Methylalkohol und Toxipeptide. Prof. F. Grignolo.

3. Ueber die Bedeutung der Anaphylaxie in der Augenheilkunde. Dr. G. V. Szily.

4. Ein Bemerkenswerter Fall von acute doppelseitiger Retrobulbar Neuritis mit Erblindung beiderseits und Ausgang in Heilung. Dr. Augstein.

5. Von dem blinden Fleck ausgehendes Ringscotom bei zerebraler Stauungpapilla. Dr. Szily.

6. Ueber eine achromatische Brillenlupe schwächer Vergrosserung. Dr. Rohr.

7. Zur Frage der Behandlung der Eisensplitter in der Linse. Dr. E. Ammann.

8. Ueber Blendung durch Assoziation. Dr. J. Isakowitz.

9. Ueber einen Fall von nekrotisch hæmorrhagischem Geschwür mit Zirkulärer Ausbreitung von der Sclera auf die Hornhaut. Prof. Komoto.

10. Bruchstücke zur Geschichte der Brille. Prof. Greeff.

11. Zur technique der Elliottschen Trepanation. Dr. Schanudigel.

12. Enophthalmus beim auseinander Ziehen der Lider. Dr. Rübel.

*Familiäre Amaurotische Idotie. Dr. Francis Harbitz.

*During the past ten years we have acquired sufficient clinical and pathological evidence to differentiate several hereditary conditions—most interesting of all is the hereditary amaurotic family history.

This peculiar disease was first described by the neurologist Sachs in 1887; the typical ophthalmoscopic picture was already described in 1881 by Tay. There are several forms of this disease, each being determined by the prominence of a certain group of symptoms. The general symptom complex for this disease is: (1) increasing visual disturbance leading up to blindness; (2) mental imbalance developing quickly into idiocy; (3) paralyses of the ocular muscles associated with convulsions.

The infantile form of this disease is characterized by the early appearance and rapid onset of symptoms.

The child is usually born perfectly normal but between the second and third months it becomes apathetic, which becomes worse, so the child is helpless—unable to move. At the same time visual disturbances occur which progress to total blindness. The ophthalmoscopic picture is a peculiarly characteristic one. In the macular region appears a light gray round spot with a red central portion; optic atrophy is also present.

Death occurs from cachexia usually between the ages of 2 and 3 years. Out of 86 cases in the literature 61 occurred in the Jewish race.

The juvenile form of hereditary amaurotic idiocy appears later in life, is of slower onset and is not confined to the Jewish race. Syphilis plays no role in this disease; intermarriage is a determining factor.

Harbitz concludes his article by giving a history of 3 cases of this disease in the same family with post mortem findings of one case.

No inflammatory reaction, no hæmorrhages were present anywhere. Ganglionic cell changes predominated, characterized by their vascularization, especially in the deep parts of the cortex in the layer of pyramidal cells.

In the retina the same condition was present—primary degeneration of the neuroepithelium, ganglionic cells; the pigmented changes were secondary.

THE LARYNGOSCOPE. Feb.

1. The Modern History of Accessory Nasal Sinus Disease. Jonathan Wright.

2. An Unusual Case of Osteoma of the Superior Maxilla. M. Delmar Ritchie.

3. A Probable Tumor of the Lung Diagnosed by Upper Bronchoscopy. Richard H. Johnston.

4. The Early Home Treatment of the Deaf Child. G. Hudson-Makuen.

*5. The Inadequacy of the Drainage Sometimes Obtained by the Ordinary Myringotomy in Acute Otitis Media and a Method of Overcoming the Difficulty. Robert Lewis.

6. Case of Cavernous Sinus Thrombosis of Otitic Origin, with Recovery. H. R. Johnson.

7. Nystagmus Produced by Galvanism of Individual Semicircular Canals. Lester M. Hubb.

8. Case of Fibroangioma of the Tongue. D. MacFarlan.

*9. New Instruments. J. J. Sullivan, Jr.

*5. In an old gentleman sixty-five years old suffering from diabetes mellitus who developed a severe otitis media suppurativa, for which a mastoid operation was apparently necessary, the author was compelled to forego operating because of objection of patient and family physician. Incision in m. t. healed altho one extended in semicircular form from the ant. fold of the m. t. extending around a circumference to and thru the post. fold. Finally author devised the idea of excising a fairly large piece of m. t.,—he removed "the lower and middle post.

portion" with Hoffman's middle-ear punch forceps, with perfect results.

Author has practiced this procedure in twenty-two subsequent cases with eighteen satisfactory results, also adds that "in only one of these cases did the perforation fail to close." Of course writer only suggests this method where mastoid operation is contra-indicated.

*9. The instrument invented by author is a set of five rasps curved to shape of probe or canula for use in nasofrontal canal,—diameter from two to four mm.,—rasp teeth are only on anterior and upper (or concave) side of instrument and teeth so set that only cut on drawing instrument from canal. Primarily for enlargement of frontal outlet but may be used also for removal of naso-antral wall in inferior meatus. Instrument manufactured by Meyrowitz & Co.

THE LARYNGOSCOPE. March.

1. Study of Innocent Growths of the Larynx, Illustrated with Eight Cases. J. Walker Wood, London, Eng.

2. The Laryngotracheal Manifestations of Thyroid Disease. Otto J. Stein.

3. Determining Factors in Tinnitus Aurium. Edmund Prince Fowler.

4. Some Curable Affections of the Acoustic Nerve. Alfred Lewy.

5. Some Ethical Problems Confronting the Eye, Ear, Nose and Throat Specialist. Linn Emerson.

6. Extradural Abscess Complicating Frontal Sinusitis. Richard H. Johnston.

7. Fibrinous Rhinitis. Virginius Dabney.

8. The Monochord. Max A. Goldstein.

9. Mouth-Gag with a Permanently Attached Tube for Continuous Etherization, and a New Tonsil Grasp. W. C. Wood.

10. Curette for Bridge in Radical Mastoid. Mark D. Stevenson.

11. Corwin's Tonsil Hæmostat. A. M. Corwin.

12. Editorial Department. Defects of Speech. Stammering—(Dyslalia). G. Hudson-Makuen.

J. OF LARYNGOLOGY, RHINOLOGY AND OTOTOLOGY. Mar.

1. The Semon Lectures, 1913. Sir Felix Semon—His Work and Its Influence on Laryngology. P. McBride.

2. Diffuse Osteomyelitis from Nasal Sinus Suppuration. Dan McKenzie.

3. Some Dental Aspects of Rhinology. J. H. Gibbs.

MEDICAL RECORD. Mar. 8.

2. Ulceromembranous Angina (Vincent's) and Its Treatment; with Report of Cases. Charles Clyde Sutter.

3. Gonorrheal Ophthalmia Treated with Gonococcus Vaccines. W. K. Mittendorf.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

March 8th.

7. Treatment of Acute Dacryocystitis. F. M. Verhoeff.

8. Restoration of the Entire Nose by Rhinoplasty and Bone Transplantation. Wm. Wesley Carter.

9. Rhinoplasty. Clarence A. McWilliams.

*13. Phenol and Ichthyol in External Otitis. Richard M. Nelson.

14. Two Cases of Tonsillectomy. T. G. Orr.

*15. Deafness Following the Use of Salvarsan. C. A. Clapp.

*13. A mixture containing 5 per cent. of phenol and of ichthyol in glycerin was found remarkably efficacious in otitis externa diffusa, myringitis, otitis externa circumscripta (furuncle of canal) and—in connection with other treatment—as good as any ear drops in acute otitis media; it was especially good in otitis externa caused by and complicating chronic suppurative otitis media.

*15. The occurrence of deafness is much more frequent since the use of salvarsan, three cases having occurred in Baltimore to my knowledge within the last two years.

ARCHIVES OF OPHTHALMOLOGY. March.

*1. Clinical and experimental researches on intraocular drainage. A preliminary report. M. J. Schoenberg.

2. Unusual duration of mental symptoms in a case of atropin poisoning. Chas. W. Burr.

3. Report of a case of conical cornea successfully treated by the actual cautery. Wm. C. Posey.

*4. The effect of chronic glaucoma on the central retinal vessels. F. H. Verhoff.

5. The optic disks in purulent otitic disease and its complications. E. Gruening.

6. The rods as color perceptive organs. V. O. Siven, Helsingfors, Finland.

7. On the etiology of Parinaud's conjunctivitis. Drs. Krusius and Clausen, Berlin.

*8. A case of eversion of the pigment layer of the iris. R. Hock, Würzburg.

*1. Dr. Schoenberg found that there is a drainage or outflow influenced by the pressure of the tonometer on an eye not subject to glaucoma, which may be determined by allowing the tonometer to rest on the eye for a sufficient number of seconds. In glaucomatous eyes the rate or rapidity of outflowing of ocular fluids due to the weight of the tonometer is retarded, or, as he found in some cases of glaucoma, there was no increase in outflow from the added weight. The results of numerous tests on the human eye and the eyes of lower animals are given.

In summing up he says the degree of intraocular pressure depends in a great measure on the integrity of the drainage system of the eye and the examination of the rate of ocular drainage is of more importance than the simple measurement of the intraocular pressure. In latent glaucoma, in which the intraocular pressure is within normal limits, the diagnosis can be cleared up to a certain extent by the measurement of the rate of ocular drainage.

*4. This article gives a report of the microscopical findings in 39 cases of chronic glaucoma. In every case one or both of the central vessels were affected with endovasculitis in the region of the lamina cribrosa; the vein being affected somewhat oftener than the artery.

In 12 cases there was a complete obstruction of artery or vein, while in two cases a complete obstruction of both occurred. Retinal hæmorrhages were present in three cases, each showing complete obstruction of the central vein. Age was apparently not an important factor in the degree of endovasculitis. Dissecting aneurisms were formed in six cases, and in one the aneurism had been divided into compartments by septa.

*8. The eversion of the pigment layer of the iris occurred as a result of an injury when some fluid was said to have escaped from the eye.

The pigmentary eversion was in the form of a black thread which projected from the posterior surface freely into the anterior chamber of the eye. On close inspection it seemed to be composed of varicose tortuosities.

At the time of the injury the penetrating object struck the iris near its pupillary margin, perforated this and reached up to the pigmentary layer. This layer was separated from its underlying structure and

on account of its unelasticity the posterior layer was torn. The pigment strip being fixed at the pupillary margin was then everted through the pupil by the escaping aqueous.

THE OPHTHALMOSCOPE. March.

1. British and continental eye clinics; some comparisons and contrasts. Ernest Thomson.
2. On negative after-images with pure spectral colors. G. J. Burch.
3. On the use and management of self-lit ophthalmoscopes. Lt.-Col. R. H. Elliot.
4. The rational surgery of retrobulbar neoplasms, with report of a case of cylindroma of the orbit, extirpation of the same and preservation of the eye. P. de Obarrio.

THE OPHTHALMIC REVIEW. March.

1. A case of paresis of the fourth nerve following herpes zoster ophthalmicus, complicated by a pre-existing heterophoria. H. M. Traquair.
2. Another glaucoma operation. David Priestley Smith.

ANNALES d'OCULISTIQUE, Mars.

1. Neoplasme du nerf optique et de la papille. Sulzer et Rochon-Duvigneaud.
2. Kératite neuroparalytique à la suite d'une injection d'alcool dans le nerf maxillaire supérieur, pour névralgie faciale. Van Lint.
3. La cauterisation carbonique dans le traitement de l'ophtalmie granuleuse. Wibo.
4. Sporotrichose primitive des paupières simulant une fistule lacrymale. V. Morax.
5. Sporotrichose expérimentale de l'appareil lacrymal du lapin. Attilio Fava.
6. Panophtalmie métastatique expérimentale à pneumocoque. Attilio Fava.
7. Recherches sur l'acuité visuelle. E. Pergens.

KLINISCHE MONATSBLÄTTER FÜR AUGENHEILKUNDE.

März

1. Ueber einen bisher nicht bekannten ophthalmoskopischen Befund. Prof. V. Hippel.

2. Ueber Keratoconus. Seine beziehungen zu inneren Sekretion und zum intraocularen Druck. Drs. J. Strebel and O. Steiger.
3. Ueber Pilzkonkremente im Tranenkanalchen zugleich ein Beitrag zur Frage der Streptotricheen. Dr. R. Wissmann.
4. Conjunctivitis Diphtheritica, Diphtherica und Crouposa. Prof. K. Hoor.
5. Ein Fall von Thrombophlebitis orbitalis nach Tranensachextirpation unter Berücksichtigung des pathologisch anatomischer Befundes. Dr. S. Takashima.
6. Wie kann man das Rot werden von Eserin lösungen vermeiden. Dr. Wolfflin.
7. Zur technik der Elliottschen trepanation. Dr. Wolfflin.

J. OF OPHTHALMOLOGY AND OTOLARYNGOLOGY. March.

1. Vernal conjunctivitis. R. B. Metz.
2. Edema of the glottis. Archibald C. Lewis.

NEW YORK STATE JOURNAL OF MEDICINE. April.

*13. Another case of gonorrheal conjunctivitis aborted by a two per cent. solution of nitrate of silver. J. Herbert Claiborne.

*14. Immunotherapy in ophthalmology and otolaryngology. R. L. Crockett.

15. Hypertrophy of the pharyngeal lymphatic ring as a causative factor in the production of epileptic equivalents. Walter S. Daly.

*13. In the first case, reported in 1910, the conjunctiva was first washed with bichloride 1:3000, the silver allowed to remain but fifteen seconds and was followed immediately by normal salt solution. It was also successful.

A young man was seen at 5 P. M., February 21st. At 3 A. M. he awoke with the left eye running. Stat. praes. Upper lid slightly swollen and reddish; lashes stuck together with yellowish pus; a string of yellowish pus across the cornea and in the cul-de-sac; mucous membrane of upper lid red and slightly thickened; cornea clear; eyeball pink, particularly around the cornea, very faint chemosis. Right eye apparently unaffected. Smears were made promptly and many gonococci found, intracellular. Immediately the patient lay with head low, all secretion wiped from lashes and mucous membrane with gauze; upper lid turned and lower one retracted, both held in position with thumb and index of left hand. The whole sac was filled, submerging

cornea and mucous membrane, with a two per cent. solution of nitrate of silver; this was allowed to remain thirty seconds and then wiped away with gauze. The considerable coagulated thin pus was removed, and the upper lid turned down. Immediately this commenced to swell and the eye became very red. Ordered atropin, solution of 1:3000 bichloride every two hours thru the night, with constant ice applications if possible. Right eye was covered and sealed. Next morning no pain, eye remarkably improved. Improvement was uninterrupted. The other eye ran the same course, similar treatment, about one day behind. Patient discharged cured March 6th. He did not have gonorrhea. Had been married two years, confessed gonorrhea before marriage but had been told he was cured. Wife had leucorrhea.

With this treatment the process in each eye was well in hand within less than twenty-four hours.

*14. Four cases of tuberculosis of the conjunctiva and sclera, all of several years' duration, symptoms practically constantly, and had long treatment by competent men. They were treated with tuberculin B. E., beginning with 1/1000 mg. and rapidly (weekly) increasing the dose till there was a general reaction and then continuing with a dose just short of that. In the typical case the eyes began to clear up after the second dose and by the end of the third month there was no trouble but the corneal scars. The first case has been free from symptoms for over a year, the second about a year, the third 9 and the last 4 months.

Immunotherapy is most efficient against the staphylococcus. The author gave autogenous, preceded by stock, vaccine. Nose and ear cases are reported.

Autogenous vaccine has greatly helped the recovery of corneal ulcers which show only xerosis bacillus.

Vaccines from the so-called bacillus ozenæ have failed in ozena because the organism which causes the odor is a saprophyte which lives in the secretions and is not touched by the blood stream.

The pseudodiphtheria bacillus occasionally produces a sinus infection which may become quite chronic.

The limitations of vaccine treatment are: the disease must be local; chronic, or at least subacute; must be caused by an organism producing endotoxins; the antibodies formed must have access to the organism; and we must use the causative organism.

JOURNAL OF OPHTHALMOLOGY AND LARYNGOLOGY. April.

1. Eye strain in the tuberculous. Otis Orendorff.
2. Relations of the vascular system to certain ocular diseases. W. H. Wilmer.

*3. Malposition of the orifice of Steno's duct, and operation for correction. C. J. Swan.

*3. Seven cases, all that the author was able to find in literature, are mentioned—in none was any attempt made to cure. Dr. Swan's case was that of a little girl aged four; the right duct opened on the cheek, so small as to be seen only on close inspection, discharging about 5 or 6 grammes when she saw appetizing food. The orifice and about 8 mm. of the duct along with an elliptical piece of skin surrounding the orifice 12mm. long were dissected out. An incision was made through into the vestibule of the mouth—the dissected portion inverted, pulled through and sewed to the mucous membrane surface. The external wound was closed with sutures. Normal function, of gland and duct, was restored with scarcely perceptible scar.

OPHTHALMOLOGY. April

1. Simplification of Krönlein's operation. A. Magitot and M. Landrieu.

*2. Wolfe graft used to correct a total ectropion of upper eyelid. N. H. Goodenow.

3. Altitudinal hemianopsia, unilateral and bilateral. Cases. Luther C. Peters.

4. The large incision in cataract extraction. E. F. Snyder.

5. Lacrymation. A. A. Bradburne.

*6. A case of mumps with interesting ocular complications. Major H. Worthington.

7. Pseudoglioma in children. Frederick Krauss.

8. Accidental tattooing of the cornea by a piece of lead from a copying pencil. Samuel Horton Brown.

*2. Under infiltration anesthesia ($\frac{3}{4}$ per cent. novocain in physiological salt sol. with a few drops of adrenalin to the unce. Field of operation washed with neutral soap, no other antiseptic. Skin and subcutaneous tissue to the muscle removed over upper lid and brow, a crescent one inch wide. Lid stitched down over lower lid. A pattern of sterile rubber tissue was cut to fit accurately, to outline a graft from outer surface of the arm a third larger than the area to be

covered; the graft, free as possible from subcutaneous tissue, measured $4\frac{1}{2}$ inches by $1\frac{1}{2}$. It was immediately transferred with as little handling as possible and found to fit in the defect (which had been covered with a warm normal saline compress), edges coapting perfectly, no stitches were necessary as it flattened down in place beautifully. Dry dressing; "report in four days." Then dressing was removed and condition found satisfactory: no reaction, no signs of sloughing, healing by first intention. In three weeks all dressings were discarded. At the end of eight months no cicatricial contraction, the palpebral fissure can be closed perfectly.

In order to ensure success with the Wolfe graft it is essential to: (1) free all adhesions; (2) place lid in extreme overcorrection and keep it there; (3) a liberal allowance of graft compared to size of defect; (4) leave no granulating spot; and (5) cover with it only freshly denuded and richly vascularized tissue.

*6. Ocular complications of mumps are rare and may be severe, they may appear when the mumps begins to subside, with convalescence or within a few weeks; they may be: abscess of the lid, dacryoadenitis, iritis, keratitis, retrobulbar neuritis, optic atrophy and blindness. Bibliography.

A man, age 23, beginning to convalesce from a severe double parotitis with orchitis of eight days. Keratitis dextra. Well in seven, or ten, days; no recurrence after three months.

ABSTRACTS.

Life-Cycle of Organism of Syphilis. J. R. McDonagh started off with the idea that the spirocheta pallida was the male gamete of some unknown protozoön, his reason for thinking that it was an end-phase of some cycle being the fact that he had never seen the organism divide. If all syphilitic lesions are due to the spirocheta and the infection is a direct one of that body from one person to another, it cannot but seem odd that one should not observe division in every film examined. It has been mooted for some time past that the spirocheta pallida has a resting stage. The author cut sections of chancres, lymphatic glands, and various forms of syphilitic skin lesions, and examined films obtained from their juice, both *in vivo* and by fixed specimens. He found peculiar granular bodies not present in nonsyphilitic tissues, and the interpretation he put upon them is as follows: The commencement of the cycle is with a sporozoite or infective granule, which, being motile, reaches a cell and enters it; the cell is always a large mononuclear leucocyte. The sporozoite then becomes motionless, and increases in size at the expense of the protoplasm of the cell, the nucleus of which always remains intact. The sporozoite in some cases steadily increases in size, while in others it appears to divide. Where there is no division the development goes on until spirochetæ are formed—the male sexual cycle. Where there is division, one-half runs the course of the male sexual cycle, while the other runs the course of the female sexual cycle; the latter at this stage seems to leave the mononuclear. In the male cycle the organism becomes vacuolated and later transformed into an irregular coil. This, in turn, becomes broken up into irregular, short, stout, and wavy bodies, and from these the delicate, long, and corkscrew-shaped organism, the spirocheta pallida, develops. This is the adult male gamete, and it probably has no more necessity to divide than a spermatozoön. It sometimes happens that circular bodies with spirochetæ coming off, like the spokes of a wheel from the axle, are found in the coil and free outside the cell.

The female sexual cycle is the same as the male up to the point of vacuolation. The female organism then takes a circular form, and in the circle there appear to be 4 or 5 distinct pear-shaped bodies. Two of these bodies then fuse and become crescentic; the remainder, one by one, join in until a spherical mass is produced. This is, in the author's opinion, the adult female gamete.

The act of fertilization he has not yet seen. After fertilization a zygote is formed, which then appears to divide into two and subdivide into four. These four masses are the sporoblasts. Each sporoblast divides and subdivides until numerous sporozoites are formed; when examined *in vivo* the cell appears to be alive with the movement of all

the sporozoites. It then bursts and the sporozoites are set free to start the sexual cycles again. This completes the sporogony.

The infection is probably conveyed by the sporozoite and not by the *spirocheta pallida*.

There is no doubt that these bodies can still be found after treatment with salvarsan, and it is yet impossible to say what action antisyphilitic treatment has upon them. Whether it is desirable, or even necessary, to give as many injections of salvarsan as in now the rule, and whether our aim to obtain a negative Wassermann reaction is a right one, are points which must remain *sub judice*, for our interpretation of the Wassermann reaction may be altered as the result of this discovery. From a point of view of diagnosis the discovery of the life cycle of the syphilitic parasite means a distinct gain, because bodies other than, and easier to find than, the *spirocheta pallida* can be demonstrated with ease, and the old difficulty of being unable to distinguish one granuloma from another in section is partly done away with.—*Brit. Jour. of Dermatology*, Nov., 1912.

Ulcer of the Cornea, and its Bacteriology. 1. *Staphylococcus*.—Frequently present in corneal ulcer and is usually introduced by an injury to the cornea. There is nothing characteristic in the resulting ulcer. Hypopyon may accompany it.

2. *Pneumococcus*.—The usual cause of the so-called serpiginous ulcer. The infection is frequently introduced by a blunt central wound of the cornea and is frequently associated with dacryocystitis.

3. *Streptococcus*.—Causes a rapidly spreading ulcer frequently ending in the sloughing of the cornea; often the result of malnutrition.

4. *Gonococcus*.—Resulting ulcer is always secondary to infection of the conjunctiva, and is more apt to occur in adults than in children. The ulcer has a tendency to increase in depth and perforate the cornea.

5. *Morax-Axenfeld bacillus*.—The resulting ulcer is usually of the marginal type and is associated with conjunctivitis.

6. *Koch-Weeks bacillus*.—The resulting ulcer is superficial and marginal type and is associated with conjunctivitis.

7. *Klebs-Loeffler bacillus*.—The resulting ulcer is always secondary to infection of the conjunctiva.

8. *Tubercle bacillus*.—The resulting ulcer is often an extension of a lesion of adjacent tissue.

9. *Bacillus ulceris corneæ*.—The resulting ulcer is marginal, crescentic and often multiple.

The prognosis in a given case depends upon a number of factors. It is a well known fact that ulcers caused by certain micro-organisms render the prognosis grave as regards not only vision, but the integrity of the eyeball itself. Perhaps the most destructive of the micro-organisms commonly found is the pneumococcus. The prognosis will depend, too, upon the virulency of the micro-organism present and the resistance of the tissue to its propagation. The

ulcer caused by the gonococcus is much more dangerous in the adult than in children. The location of the ulcer is an important factor. Central ulcers are more prone to become virulent than peripheral ulcers, and the resulting scar interferes, of course, more with vision.

When an ulcer of the cornea has once formed, the first step in the treatment should be the identification of the micro-organism present; this may be of the utmost importance. For instance, the presence of the pneumococcus indicates the necessity of early cauterization. Probably much of the good resulting from the use of the so-called antiseptics in the eye is due to their mechanical action. In the simple nonvirulent forms of corneal ulcer frequent irrigation of the cul-de-sac with lotions of boric acid, potassium permanganate or bichloride of mercury is efficacious. Of chemical agents, those may be used which combat the primary disturbance, *i. e.*, conjunctivitis, such as argyrol, protargol and silver nitrate. We have one specific of this class of drugs, namely, zinc sulphate, which is used in the Morax-Axenfeld type of ulcer. Where the attending symptoms are severe from the beginning, or when the presence of the pneumococcus has been demonstrated, chemical or thermal cauterization is indicated at once. Of the chemical cauteries, pure carbolic acid is one of the best. It is best applied by a fine applicator just moistened with the drug. The electric cautery is the best thermal agent, and, when once decided upon as necessary, it should be thoroughly used. In addition to these remedies, we must increase local and general resistance by local and general rest. Local rest is best secured by the use of atropin frequently enough to keep the pupil dilated, and in addition a bandage should be used in cases where absence of pus in the cul-de-sac permits.

Local circulation should be stimulated by the application of hot compresses at frequent intervals. The use of dionin, by its effect upon the lymphatic circulation, is of value. Subconjunctival injections are sometimes of great value, normal salt solution giving as good results as any other agent. When other measures have failed, the Saemisch section is indicated as in some cases it seems to give good results.—*Texas State Jour. of Med.*, Feb.

SOCIETIES.

AMERICAN HOMŒOPATHIC, OPHTHALMOLOGICAL, OTOLOGICAL AND LARYNGOLOGICAL SOCIETY.

Dr. Wm. McLean has sent out a letter asking members to cite cases at our next meeting at Chicago, in short five minute talks. Most of us have a wealth of material locked up in our records, which would be of lasting value to our membership. Will you, at once, send in your name to him with the subject in order that they may appear in the program?

The informal Experience Meeting has not always been a success because no definite thought has been placed on the selection of cases and would-be discussors have not had opportunity to know what cases would be discussed.

We want especially to hear of your success or failure with the homœopathic remedy.

Truly,

GEO. A. SHEPARD.

AMERICAN HOMŒOPATHIC OPHTHALMOLOGICAL, OTOLOGICAL AND LARYNGOLOGICAL SOCIETY.

Ann Arbor, Mich., May 6, 1913.

To the Members:

The following is a draft of the program for the approaching meeting of our national organization. It is neither long nor tedious but will be conceded to be one filled with good things. We are under great obligation to our President for his energetic, careful and painstaking efforts in accumulating the material for our edification at this meeting. It has been his object to have good papers, thoroughly discussed, rather than a long and tiresome program. However, the program will be long enough to keep us busy and of sufficient variety to maintain interest. Now is the time to mark off the dates on your calendar and make preparations for *your* attendance at this meeting. Remember that if you stay away you have deprived the Society of what good there is in you and you have also lost to yourself the benefit and pleasure of an excellent program and a delightful outing.

DEAN W. MYERS, M. D.,
Secretary.

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OFFICIAL JOURNAL.

Journal of Ophthalmology, Otology and Laryngology.

PROGRAM.

TWENTY-SIXTH ANNUAL MEETING, HOTEL BLACKSTONE, CHICAGO, ILL.

Tuesday, July 1st, 1913.

First Session—11:00 A. M.

Call to Order.

Adoption of Program.

Appointment of Committees: (a) Attendance, (b) Nominations,
 (c) The Press.

President's Address.

Appointment of Committee on President's Address.

Tuesday, July 1st, 1913.

Second Session—2:30 P. M.

Clinic at Hahnemann Hospital.

Tuesday, July 1st, 1913.

Third Session—8:00 P. M.

NOSE AND THROAT.

- 1.—“Chronic Ethmoid Disease and Its Relation to Asthma, by Burton Haseltine, M. D., Chicago, Ill.

Discussion by J. I. Dowling, M. D., and Irving Townsend, M. D.

- 2.—“Therapeutics of the Nose,” by John B. Garrison, M. D., New York.

Discussion by W. E. Boynton, M. D., Chicago, Ill.

Chas. E. Allen, M. D., Kansas City, Mo.

J. H. Hallock, M. D., Saranac Lake, N. Y.

- 3.—“Therapeutics of the Throat,” by Chas. E. Teets, M. D., New York.

Discussion by Alva Sowers, M. D., Chicago, Ill.

L. E. Hetrick, M. D., Newark, N. J.

Carl H. Rust, M. D., Cleveland, O.

- 4.—“Malignant Tumors of the Larynx,” by Geo. B. Rice, M. D., Boston, Mass.

Discussion by A. S. Hansen, M. D., Cedar Falls, Ia.

C. C. Collier, M. D., Chicago, Ill.

- 5.—“Diseases of the Nose and Throat as Observed in Special Corporation Work,” by H. Leroy Thompson, M. D., Chicago, Ill.

- 6.—“Packing the Tonsillar Fossa After Tonsillectomy to Prevent Hemorrhage,” by F. B. MacMullen, M. D., Ann Arbor, Mich.

- 7.—“The Need of Early Treatment in Fractures of the Nasal Bones,” by Harold Foster, M. D., New York.

Wednesday, July 2d, 1913.

Fourth Session—10:00 A. M.

- 8.—“Lip Reading Taught to Adults,” a twenty minute paper with demonstration of method on patient, by Miss Gertrude Torrey, Chicago, Ill.

- 9.—“Methods of Teaching Lip Reading to Children and Demonstrations,” by Miss Mary McGowan, Chicago, Ill.

Discussion by W. E. Reily, M. D., Fulton, Mo.

G. M. McBean, M. D., Chicago, Ill.

W. E. Waddell, M. D., Los Angeles, Cal.

Fifth Session—2:30 P. M.

EYE.

- 10.—“Simple Glaucoma,” by A. E. Cross, M. D., Worcester, Mass.
 Discussion by F. C. Lee, M. D., Cleveland, O.
 J. M. Patterson, M. D., Kansas City, Mo.
 I. D. Metzger, M. D., Tyrone, Pa.
- 11.—“Progressive Myopia,” by C. G. Fellows, M. D., Chicago, Ill.
 Discussion by H. D. Schenck, M. D., Brooklyn, N. Y.
 Chas. L. Rumsey, M. D., Baltimore, Md.
 Frank O. Nagle, M. D., Philadelphia, Pa.
- 12.—“Therapeutics of the Eye,” by Chas. H. Helfrich, M. D., New York.
 Discussion by Philip Rice, M. D., San Francisco, Cal.
 Chas. H. Hubbard, M. D., Chester, Pa.
 W. B. Kreider, M. D., Goshen, Ind.
- 13.—“Ophthalmic Hospital Reports,” by W. D. Rowland, M. D., New York.
 Discussion by M. A. Barndt, M. D., Milwaukee, Wis.
 G. DeWayne Hallett, M. D., New York.
- 14.—“Some Effects of Accommodation Upon Ocular Coördination,”
 by Geo. A. Suffa, M. D., Boston, Mass.
 Discussion by R. W. Homan, M. D., Webster City, Ia.
- 15.—“Cataract In Its Capsule,” by Dean W. Myers, M. D., Ann Arbor, Mich.
 Discussion by Wm. Muncy, M. D., Providence, R. I.
- 16.—“Tic Douloureux, With a New Procedure for Removal of the Nerve,” by I. O. Denman, M. D., Toledo, O.

Wednesday, July 2d, 1913.

Sixth Session—6:00 P. M.

Informal Dinner at Chicago Yacht Club.

Report of Committee on Special Education. Burton Haseltine, M. D., Chairman.

Smoker—“Experiences.” Wm. McLean, M. D., Chairman.

Geo. B. Rice, M. D.—Some Experiences in the Treatment of a Case of Double Empyema of the Frontal Sinuses.

Ira B. Denman, M. D.—Supraorbital Pain. Etiology Unusually Difficult of Diagnosis—How I Did It.

Burton Haseltine, M. D.—Cases of Cavernous Sinus Thrombosis.

H. Warren Johnson, M. D.—Eczematous Keratitis.

- E. D. Brooks, M. D.—A Troublesome Case of Antrum Disease.
- L. E. Hetrick, M. D.—Cataract operation in which the patient on the second day removed the bandage, and in scratching his eye everted the corneal flap. The interest is in the result.
- C. E. Beeman, M. D.—An Interesting Case Due to Frontal Sinus Disease.
- Dean W. Myers, M. D.—Sympathetic Ophthalmia.
- M. A. Barndt, M. D.—Iritis.
- W. B. Kreider, M. D.—How I Came to Use "High Frequency." A case or two.
- A. B. Clapp, M. D.—Ménière's Disease or What?
- F. C. Sage, M. D.—Burn Injury of the Eye from a Quantity of Permanganate of Potash Crystals.
- Carleton Harkness, M. D.—A Case of Epithelioma of the Lower Lid and the Treatment Which is Apparently Curing It.
- Geo. Denman, M. D.—My Most Obstinate Case of Chronic Frontal Sinusitis.
- H. S. Willard, M. D.—A Case of Parenchymatous Keratitis Treated With Neo-Salvarsan and Mercurial Injections.

Thursday, July 3.

Seventh Session—10:00 A. M.

Business Session.

- 1—Report of Officers.
- 2—Report of Secretary.
- 3—Report of Treasurer.
- 4—Report of Necrologist.
- 5—Report of Censors. Election of New Members.
- 6—Report of Committees.
 - (a) Election.
 - (b) Attendance.
 - (c) Press.
 - (d) President's Address.
 - (e) Other Special Committees.
- 7—Unfinished Business.
- 8—New Business.
- 9—Election of Officers.

Thursday, July 3d, 1913.

Eighth Session—2:30 P. M.

EAR.

- 17.—“Five Cases of Cerebral Abscess,” by A. G. Warner, M. D., Brooklyn, N. Y.

Discussion by E. L. Mann, M. D., Des Moines, Ia.

G. J. Palen, M. D., Philadelphia, Pa.

- 18.—“Therapeutics of the Ear,” by E. L. Munson, M. D., New York.

Discussion by E. G. Lynn, M. D., Des Moines, Ia.

E. D. Brooks, M. D., Kalamazoo, Mich.

H. S. Willard, M. D., Paterson, N. J.

- 19.—“Labyrinthine Tests” (Demonstration), by Geo. W. McKenzie, M. D., Philadelphia, Pa.

- 20.—“Tuning Fork Tests,” by Alfred Lewy, M. D., Chicago, Ill.

Discussion by C. Shambaugh, M. D., Chicago, Ill., who will also present lantern slide demonstration of specimens of labyrinth.

Thursday, July 3d, 1913.

Ninth Session—4 :00 P. M.

Final Business Session.

THE INTERNATIONAL HAHNEMANNIAN ASSOCIATION.

Office of the President, J. B. S. King, M. D.

The attacks and encroachments that have been and are now being made upon Homœopathy make it very necessary that more attention should be paid to the annual meetings of our international, national and state societies than ever before and that they should be better attended and a more active interest manifested. Unless homœopathic physicians wake themselves up out of the “sleeping sickness” and apathy that seems to affect them, they will be rudely awakened by the loss of many of the privileges and rights that they now enjoy. Of the fifteen thousand homœopathic physicians in the United States, only a small per cent. belong to or take any interest in our societies or in our welfare as a whole. Opportunities to show some interest are now offered plentifully.

The International Hahnemannian Association, that has ever been an active fighter for homœopathy and has never in its thirty-six years of existence had a dull or unprofitable meeting, holds its annual convention in Chicago at the Chicago Beach Hotel on June 23, 24, 25.

Come, doctor, get out of your rut, break into your routine and make

the slight sacrifice necessary to attend this important meeting. It will be as good as a month's postgraduate course and may have an important bearing upon the future welfare of our school.

J. B. S. KING.

AMERICAN MEDICAL EDITORS' ASSOCIATION.

The Annual Meeting of this Society will be held June 16th, 1913, at the Hotel Radisson, Minneapolis, Minn.

An interesting program has been prepared covering items of journalistic as well as general information.

The Annual Banquet will be held on the evening of the 16th, at the Radisson Hotel.

CORRESPONDENCE.

MY PLAN TO PLACE HOMŒOPATHY ON THE PROPER BASIS AS THE SCIENTIFIC THERAPEUTIC RESOURCE OF MEDICINE.

BY FRANK F. CASSEDAY, PH. B., M. D.,

Portland, Oregon, U. S. A.

Modern conditions of society demand that any cause or movement, no matter what its merit or how much it will benefit the world, must have an organized body of earnest, aggressive, and forceful men and women behind it, otherwise it will fail or die of inanition. The activities of the individual in modern society are increased a thousand fold over twenty or even five years ago. There is so much to distract attention and interest that without continued publicity any cause will fail.

Homœopathic physicians as individuals are doing well in a financial way, but organized Homœopathy is losing ground. There is no concerted and organized effort to educate and increase the number of patrons of homœopathy, to make new converts to homœopathy, to demonstrate by public lectures the efficacy of the treatment, to describe the institutions and describe their work, to give comparative statistics or to educate the rising generations to the benefits of the treatment and give concrete examples. The public needs education and needs it constantly year after year.

The old school has failed. They confess their inability to cure disease by means of internal remedies. They run after serums and specifics.

The old school are telling the people that homœopathy is dead. Since the homœopathic physicians fail to give the lie to these statements as they should, the public, owing to the lack of protests from homœopaths, are coming to believe that these lying statements are true.

The old school by flattery, cajolery, and promises induce homœopathic physicians to join old school societies, and then literally hug them to death and thus make a new kind of doctor, namely: a homœopathic physician by education, an old school physician by absorption, which equals an old school physician plus a little homœopathy. The

primary class in school had been listening to a description of birds and bird life. A little wren was described as a small brown bird, small head, and a little short tail, nothing to speak of. At a school exhibition held soon after, a little boy described the wren as follows: "A little brown bird, with a small head and a little tail, but you must not say anything about it."

The Mormon Church carries on a constant campaign of public proselyting year after year all over the world, and to-day it is one of the most stupendous religious, business, and political organizations the world has ever seen. No noise or conflict, just constant unceasing publicity.

The Christian Science Church has the most complete system of publicity to meet the public in a large way. Their system consists of lectures to the public, a constant stream of literature suitable for publication, 20,000 to 30,000 publications all over the world, replies to criticism both friendly and unfriendly, local representatives to answer criticism and report same to head office, and personal letters and articles. It has built up a marvellous organization and practically stifled opposition, adverse criticism, and is constructive to the last degree.

The Osteopaths are carrying on a publicity campaign.

The old school are carrying on a sort of campaign of publicity, but it lacks unity and plan.

My plan includes:

1. Central Publicity Bureau composed of from three to five men under the authority of the American Institute of Homœopathy. One man in charge who can write live matter in a popular vein free from technicalities, boiled down, plain and newsy.

The work of this bureau will include general supervision as follows:

(A) Writing, printing and distribution of live matter printed on slips (on one side only) on health, sanitation, food, diet and homœopathy and distributed to 20,000 to 30,000 newspapers and other publications weekly and monthly, year in and year out. (B) Writing and distribution of missionary slips with boiled down information about homœopathy, with comparative statistics, in quantities free to homœopathic doctors. Said slips to be distributed by each physician in his own locality with his own card. (C) Clipping record. Clippings from all newspapers, magazines, etc., supplied by a clipping bureau; all clippings referring to homœopathy in any way. This is the basis of the

entire work. All adverse criticism as shown by these clippings, whether inspired by malice or friendship, should be supplemented by sending more matter to the critical publications, with personal letters in a conciliatory vein. (D) Organization of the doctors locally through correspondence from the head office, with suggestions as to the most effective methods of procedure, local organization, and constant interchange of ideas, suggestions as to ways and means of pushing the campaign. (E) Distribution of press notices to the homœopathic medical journals. These to be printed on one side of slips ready for clipping for publication. (F) Coöperation with all foreign homœopathic organizations carrying on publicity campaigns, and inviting suggestions and facts about the foreign work. (G) Distribution of reports of the work and statistical information to all homœopathic medical societies the world over, and arranging for an exchange of courtesies in the way of statistics, suggestions, and information between the American bureau and societies. This to include all colleges, dispensaries, hospitals, and affiliated organizations interested in the campaign.

2. The Public Lecture Plan. Public lectures given by physicians in towns and cities throughout the country. Country will be divided into from six to eight zones. For example—Pacific coast states of Washington, Oregon, Idaho and California will form a zone. Physicians of one state will go to adjoining states and give public lectures, thus exchanging courtesies. This work can be done at no expense. Able men will be glad to go any reasonable distance and pay their own expenses. In special cases traveling expenses can be paid where the distance is great. Under this plan is no necessity for men to go from extreme east to extreme west, or vice versa, a useless expense. Other zones can be organized in the same way—as Middle west, Middle south, Middle east, Middle east-south, East, and East south, or any form desired or convenient, depending on population, facility of transportation, and large centers.

3. No traveling representative needed to visit the doctors. Money expended for such a useless officer more effectively used for publicity work. Physicians all intelligent men and women. They can be reached by correspondence with Head Bureau. As soon as plan is developed and the tide sets in for homœopathy the American Institute of Homœopathy will have the largest and most active membership of any society in the world. Show the doctors that they will be placed in touch with the people. That is all that is necessary.

4. No journal needed. Let the medical journals do the medical end of this campaign. Help them. Encourage them. Furnish them material and financial aid by means of distribution of special editions devoted to certain matters from time to time.

5. Financing the Campaign. There are something like fifty thousand homœopathic physicians in the United States. At two dollars per head a year that yields one hundred thousand dollars. Many can and will contribute from ten to fifty dollars a year for ten years, so in case the number of individuals is less than my estimate the amount available will not vary materially from the sum indicated. Even twenty-five thousand dollars for the first year expended on the work would work wonders. Let the money be used to pay for live wire men who would do things. Cut out the pensioners and get workers. A live active man who understands publicity work, with a corps of stenographers and typists, and mailing clerks, could make the entire population of the United States sit up and take notice within two months that homœopathy was alive, was growing, was the real method of cure, and the battle would be half won, provided the campaign was continued year after year. No fancy offices, or highly paid high browed loafers can be used. The men to make this thing effective must be real workers who will take off their coats and keep busy.

The expense of the lectures will be met by each local body of physicians. They will hire the hall or theater (no churches should be used to avoid social entanglements), some good music, pay for advertising the lecture, arrange for stenographic report of lecture to be published in the papers the next day. At the lecture leaflets about homœopathy, previously sent by the head bureau, will be distributed to the audience together with a small leaflet giving the name and address of each homœopathic physician in the city who contributes to the movement. Leave out all who refuse to coöperate and they will be glad to come in after the movement is started.

Nothing unprofessional or unethical about the whole matter. It is education of the public. The public want the services of physicians who will give them relief. The old school physician cannot give it, according to his own confession.

If the people attending the public lectures in the cities are not informed as to where these homœopathic physicians, who have been in hiding so long, can be found, the laity will be left suspended in mid-air and the entire object of the whole movement will go for naught.

Some selfish physicians who are well established will refuse to come in for purely selfish reasons. Cut them out and forget them. They will be knocking for admittance later. If they never come in the loss is theirs, as they can do no possible harm to the movement.

I would also suggest the city directories be ordered to insert a heading for "Homœopathic Physicians," telephone directories the same, and let every earnest homœopathic physician display his colors on all occasions. If homœopathic physicians are ashamed to announce themselves as such we cannot expect the press and the people of the country or the world to take homœopathy seriously.

AMERICAN INSTITUTE OF HOMŒOPATHY.

PROPAGANDA OF HOMŒOPATHY UNDER THE INSTITUTE'S COUNCIL OF MEDICAL EDUCATION.

The Trustees have authorized the Council to take full charge for five years of the propagandistic work including that of the field secretary. The Council submits the following program:

1. To issue periodically a News Letter, printed on one side, giving items concerning doings of the homœopathic school throughout the land (in its colleges, societies, institutions), statistics, and matters of sanitation, etc. This to be distributed to newspapers throughout the country as the funds of the Council will permit.

Clippings are requested of comments incited by the above. Items are also requested for the News Letter which would be of value to the cause and of general (as distinguished from local) interest.

2. The employment of a Publicity Agent, or a press agent.
3. Public lectures. The Council will furnish lecturers on popular medical topics, particularly in respect to homœopathy, provided physicians in given localities will secure place and audience and determine date.

4. Instruction of college students and graduates in the possibilities of homœopathic medicine as a profession. The Council asks physicians living in college towns to secure information as to the graduates contemplating the study of medicine, sending in the names; the Secretary of the Council will furnish literature upon homœopathic medicine. "You can greatly assist the Council in this work. If you favor any particular homœopathic college you may rest assured that the

Council will work with you in influencing the prospective student to that college and no other."

5. Society coöperation. The Council will be glad to assist in the work of arousing enthusiasm in existing societies, in the creation of new ones, or in the reorganization of those that have been suspended.

6. A Clearing House. The Council will serve as a clearing house for the location of physicians, hospital internes, etc., and to keep such information on file. "In this we ask your assistance."

7. The legislative field. If you live in a capital city, or have in your clientele, or among your friends, members of your state legislative bodies, see that the Council is kept informed of any and all adverse or suspicious medical legislation that may appear. Let us not be caught napping. Favorable legislation should be reported to the News Letter:

8. The financial question. The Council is raising its own fund; upon this fund depend the extent and permanency of the work. The Council asks every homœopathic physician in the United States to contribute \$2.00 a year for five years as his or her share. Many can afford more—few can not afford this. Many can secure this and more from a sympathetic patient or friend. Be "a live wire."

The Council consists of Doctors George Royal, Chairman; W. A. Dewey, Ann Arbor, Mich., Secretary; J. B. Garrison, New York; J. P. Sutherland, Boston; H. H. Baxter, Cleveland.

Dr. Casseday's efforts are bearing fruit promptly.

BOOK REVIEWS.

THE CATARRHAL AND SUPPURATIVE DISEASES OF THE ACCESSORY SINUSES OF THE NOSE. By ROSS HALL SKILLERN, M. D., Professor of Laryngology, Medico-Chirurgical College; Laryngologist, Rush Hospital; Fellow American Laryngological, Rhinological and Otological Society; Fellow N. Y. Academy of Medicine; Member of the Society of German Laryngologists. Cloth, $9\frac{1}{2} \times 6\frac{1}{2} \times 1\frac{3}{4}$ inches. 389 pages. 247 illustrations and 6 plates two of which are colored. \$5.00. Philadelphia and London. J. B. Lippincott Co. 1913.

The profession is to be congratulated upon this, the only work of its kind in the English language. Other books covering the nose do not cover the sinuses so thoroughly. Written as a handbook for students, it has for the specialist the value of a monograph. The very numerous references amount to quite a thorough bibliography.

A number of pages are devoted to ocular and orbital troubles due to sinus disease. The views of leading writers upon the relation of polyp formation to nasal suppuration are given and discussed—one of the most disputed points in rhinology today. Examination of several thousands of specimens shows that it is the exception rather than the rule to find direct communication between the sphenoid sinus and the superior nasal passage; this can occur only when the recessus sphenoidalis is excessively deep and the superior turbinate fully developed.

Under ordinary normal conditions the nasal mucous membrane is able to render pathogenic organisms inert and to expel them.

Over five pages and two illustrations are devoted to local headache as a symptom of sinus inflammation. Differentiation between frontal sinus empyema and suppuration of the anterior ethmoid cells is a rhinological nicety; but these usually are associated, if the sinus has pus.

Before a correct sinus diagnosis can be reached the secretion must be followed to its source. This is often a matter of days and even weeks, and speaks forcibly against the possibility of making a reliable diagnosis by a single, superficial examination. Transillumination, in the author's judgment, should be only an adjunct in diagnosis, to be corroborated before operating radically.

Skillern's personal stand in the subject of dilatation of sinus walls from the internal pressure of an empyema is that the healthy osseous walls do not yield.

The author's style is clear, like that of an experienced teacher, and the book is a real luxury—beautifully printed upon heavy glazed paper and rich in exceptionally fine illustrations which illustrate clearly the successive steps of the operations and the anatomical anomalies and variations. The two Roentgen ray plates are particularly good.

We criticise the author severely for not giving the Dowling tamponade when dealing with treatment; this is inexcusable in a book so up to date and thorough otherwise.

OPHTHALMIC SEMEIOLOGY AND DIAGNOSIS. PYLE'S INTERNATIONAL SYSTEM OF OPHTHALMIC PRACTICE. By CHARLES H. BEARD, M. D., Surgeon, Illinois Charitable Eye and Ear Infirmary (Eye Department); Oculist to the Passavant Memorial Hospital and the North Star Dispensary (Chicago); Member, ex-President, Chicago Ophthalmological Society; Member American Ophthalmological Society. Cloth, $9\frac{1}{2} \times 6 \times 1\frac{1}{4}$ inches. 400 pages, 13 colored plates and 71 figures in the text. \$4.00, net. Philadelphia. P. Blakiston's Son & Co. 1913.

Another exceptional (and beautiful) book. There is not another book, in any language, devoted exclusively to differential ocular semeiology, as is this.

The introductory chapter is followed by ten more upon the lids, lacrimal apparatus, conjunctiva, globe, cornea, iris, anterior chamber, pupil, lens, and cataract. Part second consists of eight chapters on the fundus: the papillary region, modifications and alterations referable to the blood-vessels of the papilla and retina, topic modifications of caliber in the retinal vessels, the macular and posterior polar regions, the median and peripheral regions of the fundus, light and dark spots in the fundus, hæmorrhages, and detachment of the retina. The table of contents, full of detail, is supplemented by seven double column pages of index. As usual with Blakiston their department, including the illustrations, is first class. The colored plates of the fundus—seen to better advantage with yellow light—deserve special mention; they were made by the author himself, instead of by a hired artist.

In his introduction the author criticises the evils of specialization: the student who prepares himself from the beginning for a chosen specialty “risks becoming more of an intricate scientific automaton than a thinking, reasoning individual. Affections of the eye are, in the main, but the local manifestation of a morbid process elsewhere in the system, hence the necessity for broad grounding and of keeping up to date in matters relative to the whole domain of medicine.” He does not consider it important to discriminate between corneal macula, nebula and leucoma, but holds it often of considerable moment to distinguish a true cicatricial lesion, for instance, from an actively inflammatory one.

Disturbances of sensation in the cornea should be sought after. In order to appreciate the slight alterations in the color of a diseased iris the different physiological tints should be studied and a certain amount of chromatic education is necessary in order to describe them; “many otherwise excellent clinicians are deficient as concerns training of the color-sense.” “The possibilities for the clearing up of cataract-

ous lenses, with and without local and systemic treatment, are becoming more and more recognized;" most is to be hoped for in incipient cortical cataracts.

By the tonometer of Schiötz, or that of Nicati, the limit of safety upward is 25 grammes of mercury, but may fall as low as 14 without detriment; between these extremes it is called normal.

Hypertension of the globe is often of special semiological value in forming an idea as to whether or not a tumor primarily intraocular has become extraocular; the tension is likely to be normal as long as the tumor is strictly within the globe or sclera. "Hypertension always means glaucoma." "There are many reasons that lead to the belief that glaucomatous tension is always secondary, strictly speaking."

One of the interesting things in this interesting book is a complete scheme showing the effect upon the pupil, and upon the vision, of lesions situated at certain places along the courses of nerves.

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Vol. XIX

Lancaster, Pa., and New York, July, 1913

No. 7

EDITORIAL.

FORMALDEHYDE AND SOME RECENT METHODS OF LIBERATING IT.

FORMALDEHYDE, or formic aldehyde, CHOH , is a gas but slightly heavier than air—specific gravity at 77° 1,075-1,078—soluble in water up to 40%, its aqueous solution is marketed as Formalin, “40% Solution of Formaldehyde,” and Formol. Commercial samples sometimes run as low as 30%. Formaldehyde may be derived from methyl alcohol by the removal of two atoms of hydrogen. Formic acid is formed by adding one atom of oxygen to formic aldehyde.

Solutions are very apt to throw down a white powder, Paraformaldehyde or Paraform, which is a condensation of six molecules of formaldehyde $(\text{CH}_2)_6\text{O}_6$.

Trioxymethylene, $(\text{CH}_2\text{O})_3$, consists of three molecules of formaldehyde; it is a white powder with a strong odor of gas. By heat, short of combustion, these powders may be volatilized into formaldehyde.

Among other properties, formaldehyde is one of the best of germicides and deodorizers. This is supposed to be because it combines with the albuminoids forming the protoplasm of microbes and also with nitrogenous products of decay, fermentation and decomposition, as well as with ammonia, forming entirely new chemical compounds which are both odorless and sterile.

The New York City Health Department* has used formaldehyde for disinfection since 1902, but until now has not been satisfied with

*“Municipal Disinfection in New York City as Recently Reorganized.” M. C. SCHROEDER, M. D. *Amer. Jour. of Public Health*, vol. 2, no. 8. This gives details of experiments and of administration.

its methods. After 55 formulas had been tested as to efficiency, cost, danger of fire, time required to disinfect properly and ease of transportation—four hours was the time selected and effectiveness was tested by threads impregnated with cultures of *B. coli* and *B. pyocyaneus*—the permanganate method was adopted for room disinfection; these bacterial tests are still made as controls. Before deciding upon the permanganate method a large number of analyses were made to ascertain the amount of formaldehyde gas it evolved and the amount remaining in the residue. As much as 87% has been found to be available.

A number of hospitals now use this method for their operating rooms.

PERMANGANATE METHOD.

For each thousand cubic feet of air space—1 ounce (30 grammes) of Paraformaldehyde and $2\frac{1}{2}$ ounces (75 g.) of Potassium permanganate (packed in individual card board boxes) are thoroughly mixed in a small (pint) deep tin pan, $4\frac{1}{4}$ inches at the bottom, 2 inches deep and $6\frac{1}{4}$ " at the top; 3 oz. (90 g.) of water are then added, stirring in thoroughly. The evolution of gas, which is complete in 5 or 10 minutes, is comparatively slow in starting, giving plenty of time to leave the room and seal the door without being annoyed by the fumes.*

The Germans found that intense heat is evolved by pouring small quantities of water upon large masses of paraform and permanganate, thus bringing about very rapid action and a vivid flame. They guard against this by using small vessels for containers, dividing the charge; they also recommend first mixing the permanganate and water to which soda is added in small quantities, and last of all the paraform.

At first thought permanganate would seem to be unreliable because of its great oxidizing power, no one knowing how much formic acid would be produced, but the above method has been shown by its controls to be effective and reliable and, as stated above, to liberate as much as 87% of its formaldehyde as free gas.

It would be difficult and confusing to attempt to give the chemical equation for this method, because the reaction and the result are de-

*It goes without saying that the room must be sealed entirely gas tight—fireplace, keyholes, windows. To open up, enter with a wet handkerchief over mouth and nose and throw up the windows; spraying ammonia water as one enters and crosses the room will neutralize much if not all of the gas.

pendent upon a number of conditions; these vary with the technique and with the amount of interacting substances used.

BOOK DISINFECTION.

The city made a number of experiments in book disinfection[†] and found that a three hours' exposure at 55° C. to moist heat and formaldehyde will kill the bacteria without damaging the books beyond a slight spreading of the leaves. The books are placed with the leaves separated in a small steam chamber with—for each thousand cubic feet—6 oz. paraform, 24 oz. water and 18 oz. of potassium permanganate; the heat is maintained at about 55° C.

The latest suggestion for room disinfection with formaldehyde is to liberate the gas by immersing a lighted electric lamp in formalin.

This would be convenient in houses installed with electricity, and safe from fire, but it has not yet been worked out. Experiments are required to ascertain how much heat will be necessary, whether paraform would be precipitated and, if so, whether it would subsequently be volatilized, whether a 16 candle power lamp and a fireless cooker would suffice.

The carbon filament Edison incandescent lamp evolves for each candle power 14 British thermal units per hour; manifestly this heat would not be sufficient unless it were accumulated by prevention of radiation.

Experimentation may possibly (hardly probably) place this among accepted methods.

FORMAMINT.

Nascent formaldehyde in solution is formed[‡] upon moistening chlormethylmenthoether.

This substance, obtained by the action of formaldehyde on menthol in the presence of hydrochloric acid, is odorless and practically tasteless; when moistened it splits up into its original constituents: $C_{10}H_{19}OCH_2Cl + H_2O = CHOH + (C_{10}H_{19})OH + HCl$.

"Formamint" tablets, each weighing about a gramme, probably consist of chlormethylmenthoether, milk sugar and palatable "correctives," principally citric acid. One of these, when dissolved in the mouth, is said to slowly evolve about 10 mg. of nascent formaldehyde.

[†]*Loc. cit.*

[‡]Wedekind, *Zeits. f. angewandte Chemie*, 104, vol. 22.

A slight experience seems to warrant the belief that it is worth while to precede throat and mouth operations with this. It is claimed to cure tonsilitis, and is suggested as a prophylactic for those exposed to tuberculosis, diphtheria, etc. If the proverbially careless "consumption" patient would habitually use some such preparation his cough and his lips might be less dangerous to others.

A PRESCRIPTION BASED ON THE TEMPERAMENT.

PHILIP RICE, M. D.,

San Francisco, Cal.

MSS E., age 25, sanguine vital temperament with a strong tendency to become lymphatic. Has suffered quite constantly for ten years past from nasopharyngitis. During the time has had frequent courses of local treatment with never anything more than temporary improvement. Takes cold easily, and after each cold has a return of all the old symptoms. The mucous membranes of the nose and throat are congested and spongy, and at night she does more or less mouth breathing. The discharge from both the nose and throat is thick, albuminous, slightly salty to the taste, and at times irritating. The ala nasi are dry and have a tendency to crack.

These symptoms are very characteristic of *natrum muriaticum* and there was a strong inclination to give this remedy, but an analysis of the temperament led us entirely away from it. The temperament is distinctly not that of *natrum mur.*, but is very clearly that of *calcareo carbonica*. Being convinced that this is of much greater importance in the analysis of the totality of the symptoms of a case, because it is the primary state or rather the fundamental condition, *calcareo carbonica* 30 was prescribed. No local treatment whatever was given. Three weeks later she reported a greater degree of improvement than she had experienced from any kind of treatment ever applied. She also reported that since her previous visit she had passed through the only normal menstrual period in all her menstrual life. For a number of years the first day of the flow was always spent in bed, and during the entire period she suffered intense backache. In short she was better in every way. *Rx. Placebo.*

The point I wish to make in this report is that the temperament, or let us say the character of the organic constitution, is primary to and therefore more fundamental than the symptoms themselves;—and on that ground it can never be neglected in our study of the symptom complex in a case. In this case this was clearly so and in many others we know it is so, as for example in teething children, especially those of a rachitic constitution.

Physiology teaches that the character of the functions and the organic reactions are determined by the character of the organic structure, the degree of development and the correlation of the various organs and systems. This being true it must follow that the symptoms and their modalities, tho always important factors in our analysis of a case, can never be considered as the prime or fundamental factors. That they are clearly secondary in many conditions we know from experience. We know many conditions as being nothing more than fully developed predispositions. The various temperaments and morphological combinations furnish different degrees of susceptibility to the same drug and pathogenetic influence. This particular patient's temperament I knew from experience was susceptible to the influence of *calcareo carbonica* and, according to the principles of *similia*, was predisposed to produce conditions for which this remedy was the *similimum*. Hence the predisposition being primary to the symptoms it naturally took precedence over them in our determination of the remedy.

By the ordinary methods of selecting a remedy nothing would have been more natural than to have chosen *natrum muriaticum* for this patient, and I am willing to admit that it might have modified many of the symptoms complained of. But I do not for a moment believe that it could possibly have accomplished what *calcareo* did, and for the very fact that it is not the *similimum* to the temperamental condition which is, I repeat, the fundamental condition. *Natrum* has nothing in its entire pathogenesis that is indicative of a lymphatic or phlegmatic disposition, whereas *calcareo* has this running all the way through. And that a remedy, in order to be truly appropriate to a condition, must modify, even eradicate, the underlying morbidity goes without saying. The mere lopping off of symptoms is no proof of similitude in a remedy whatever since we daily see symptoms disappear when no remedy has been given. The real criterion lies in the improvement that takes place in the whole constitution, in the disappearance of predispositions and susceptibilities. The cessation of a catarrhal discharge in the presence of a continued susceptibility to cold and predisposition to catarrhal colds is not the slightest evidence that such treatment as we may be applying is at all appropriate.

Head Building.

• SOME HOMŒOPATHIC EYE CASES.*

JAMES A. CAMPBELL, M. D.,

St. Louis, Mo.

I T has always seemed to me that the prime reason for the existence of this association, or any other homœopathic association, is to exemplify and demonstrate the value of the homœopathic remedy, and to affirm and prove our belief in the great law we are presumed to follow. For the above reasons, in recent years I have felt it a duty to present papers at this society, in keeping with this view. Therefore I offer you some homœopathic eye cases.

Case I. Mr. B., 27 years old, a member of a well known Missouri family, came to me with a very painful left eye, commencing a week or so before without any known cause; it had continued with increasing severity.

Examination showed a clear case of iritis. Atropin sulph, (gr. iv to $\bar{5}$ i) revealed irregular dilation of the pupil, with several points of firm adhesion of the pupillary margin to the lens. The iris was discolored, but there was no evidence of specific gummatous exudation, and nothing in the patient's history led me to suspect such a complication.

A few years before, while at college, his right knee had been injured in a foot ball game, and he was troubled with it more or less ever since, in fact, for a month or more, had been using two crutches to get around. The pain and stiffness of the knee were subject to periodic aggravations. It was during one of these aggravations that the eye began to trouble him.

My diagnosis was rheumatic iritis, which in my experience is more difficult to control than specific iritis.

In iritis it is absolutely necessary to break up any adhesions of the iris to the lens, and to prevent any further attachment, if possible. For this purpose I used the usual atropin sulph. This gradually broke away the posterior synechia, requiring four or five days to complete it. Dionin, gr. v. o $\bar{5}$ i, locally, a few times, aided in controlling the pain.

The local treatment is that universally used, but alone would not have reached the cause.

*Read at the Missouri Homœopathic State Society.

He said that the knee pained him most of the time, worse when he began to move, but some better after the first motion. He was restless and must change position frequently. *Rhus tox.* 3 was given him from the beginning. Rapid improvement both of the eye and the knee followed. After the first week he used only one crutch, in another week he came to my office without a crutch, and the eye seemed about normal. Surely no one would claim such results from local eye treatment alone.

Case II. Young lady, 20 years old, had pain in and about the eyes and head for several weeks. One would naturally expect to find some refractive or muscular trouble in such a case, but examination failed to show either. The mother said she was despondent and cried very much, without known cause. Was a blonde with light hair and blue eyes. *Pulsatilla* 6 was given her. She returned in one week according to instructions, completely cured.

Case III. Man 67, right eye, always defective, but not otherwise troubled, began to pain; eye ball red and sensitive; photophobia; ocular congestion deep seated. Tension + 1.

Regarding the attack as glaucomic, *eserin sulph.* (gr. i to $\frac{3}{4}$ i) was used 3 times a day. *Gels.* was given internally with warm applications to the eye. Some improvement followed, but periodic aggravations occurred. He had been affected with hip disease in childhood and there were scrofulitic complications in his family.

Several internal remedies were tried, in keeping with the symptoms as they appealed to me. Under tuberculin 200 some amelioration followed, but regular aggravations kept up until, finally, *chinin. arsen.* 6 was given, which in a few days brought back the eye to its normal condition with no pain, no redness or other symptoms of irritation present.

The above list could easily be stretched out, and many cases could be presented, with like results, from the internal remedy.

I am well aware that there is nothing new or startling in the above, but I am very much of the opinion that many of our men, in their tendency to follow new and delusive methods, are forgetting the splendid efficiency of the old and well tried remedies of our materia medica; and this to me is the one great and serious error of some of our men to-day, leading to disappointment and disaffection, faint heart, and lack of old time enthusiasm and loyalty so necessary to success, progress and self preservation.

Mermod-Jaccard Building.

ON UNDERTAKING SUBMUCOUS SEPTUM WORK.

DOUGLAS MACFARLAN, M. D.,

Philadelphia, Penn.

WHILE the experience of one's first submucous work is yet fresh in the mind it may not be useless to set it down. For text books and monographs are singularly lacking, as a rule, in what may appear to be commonplaces, and the nose and throat man undertaking his first submucous septum operation will find himself confronted with obstacles of which he was entirely unsuspecting and which at the time will be almost insurmountable. He will find himself trying to drive the operation on through these difficulties to some sort of a result, and a day or so later will have a rather disagreeable sight to look upon. He may become discouraged, condemn the operation, or more rarely regret his own lack of skill and try again. If he chooses the latter course he will in time learn to put some stress on certain little axioms of his own that he finds imperative.

The selection of a case.

It is either a brave or a blind novice who picks his first cases in a haphazard way. There should be no difficulty in getting the desired case when you realize that 28% of nose and throat patients have more or less marked deflection. Let an ideal case be selected. The patient is of an age and disposition that presupposes some degree of self-control; they have "good nerve" and can stand the sight of the blood and the tediousness of half an hour to an hour's operation. They should have shown no tendency to bleeding and should be questioned to bring out this fact.

The deflection should be a simple one toward the left, that is, not angular or complicated with a spur or bad ridge. It is advisable to avoid these cases until greater skill has been developed. The same may be said of cases that have had some previous septum work done, where the fibrous cicatrices are very annoying.

It is a good general rule not to operate when there are evidences of some acute catarrhal condition in the nose; a clear nose may mean much toward a rapid postoperative course.

Before proceeding to the operation make sure of two things: 1. Have all the instruments you need or may need.

2. Shrink down and cocaine well before starting. For this an

applicator dipped in adrenalin then rubbed in cocain crystals is useful. There is much evidence that the stronger cocain solutions are not absorbed as rapidly as the weaker ones and are naturally more effective than the latter.

Points in the operation.

The initial incision should be long, as vertical as possible and preferably well forward to avoid the anterior septal artery. In making this incision a single stroke of the knife will give the smooth edged cut desired, the knife point being carried down to the cartilage throughout the length of the cut. Thus, on picking up the dissector to proceed there will be no irregular tabs to be torn through to reach the cartilage, in other words, no cutting to be done with the dissector.

At this stage the initial bleeding will be annoying and should be stopped before proceeding. Adrenalin will be efficient unless the bleeding is so free that the solution is washed away from the parts. If unsuccessful, pack with a small plug of cotton and compress the nares for a minute or two. Peroxide also is an efficient hæmostatic.

In continuing with the operation it is well to start the submucous elevation with the sharp elevator, keeping in mind, however, that it is to be replaced by the dull instrument as soon as possible. The guide should be the white glistening septal cartilage and the operator must always be sure he is down upon it and working against it. Frequent swabbing will reveal the cartilage, its clear white contrasting markedly with the dulness of any perichondrium that may have been missed. When under the perichondrium the dissection goes easily, so the difficulty of the work is some index as to where the dissection is going.

Once well started, faster and safer work can be done with the blunt elevator, and it will be a good maxim never to use a sharp elevator where a blunt one will do. Yet the other extreme is dangerous, when a blunt instrument is forced through a fibrous adhesion.

The side upon which the start is made should be well dissected before going through the cartilage; the cartilage forms a great protection against tears. Further dissection later, when the cartilage has been partially removed is dangerous. At this stage, too, it is well to remember that if a bad tear has been made the operation can be advantageously abandoned for a week or two until the tear has healed over.

In cutting through the cartilage a long clean cut is desirable. Perforation should be guarded against by placing the tip of the little finger in the untouched nostril and feeling the knife point through the intact mucous membrane.

Proceeding with the dissection on the "opposite" side, the sub-mucous elevator should be kept forced against the cartilage; its direction and movements can be seen through the membrane and should be constantly in view. If bleeding prevents this, do not continue until it is controlled and if necessary postpone the operation rather than work blindly.

It is well to have the dissection "complete and plenty of it" before removing cartilage; this applies particularly to dissection toward the floor. Ballenger's speculum gives an excellent view of what has been done and what latitude there is for removal of the cartilage and bone.

One more word about dissection may not be out of place. "Judge the rapidity of your work by the ease with which the membrane strips, the thickness of the membrane and the conformation of the deflection." In other words, it is inadvisable to work fast through a tenacious membrane, to dissect fast if the membrane is thin, or to attempt to get over a ridge hurriedly.

In removal of the cartilage the smallest convenient Ballenger knife is most suitable, for with the larger size torn tabs of mucous membrane may be caught and stripped. The same applies to the smaller punches, which should be used where possible in preference to the larger ones. It may be unnecessarily suggested that the operator make sure the piece grasped in the punch is dissected free of mucous membrane.

As to the last stage of the operation, the packing, little preference is to be stated between the different procedures if done thoroughly. However, the use of Simpson's tampons smeared with yellow oxide or bismuth ointment is most convenient, simple and sufficient. The necessary pressure is assured if two are put in each nostril. It is well not to leave the packing in more than forty-eight hours; repacking seems seldom needed.

The patient should be told of the inconveniences that he will have to endure for two days after the operation. The occluded nose and the oozing of blood are the greatest bother. There will be but little sleep and much worrying. Chewing of gum though apparently trivial advice gives the patient much relief from the dryness of the mouth.

With these casual observations that have in the past meant much to the author—and which at present have become an almost routine part of his *modus operandi*—it is hoped that those following similar paths may be somewhat benefited.

1805 Chestnut Street.

CAPILLARY ANGIOMA OF THE RETINA.

H. FRENKEL, of Toulouse.

(Translated from *Annales d'Oculistique*, March, 1912, by JOHN L. MOFFAT, M. D.).

THIS condition, sometimes called "Hippel's Disease," which has for so long foiled oculists has been definitely catalogued and robbed of its mystery by the anatomico-pathological researches of Collins, Czermak-Ulbrich, and von Hippel. We now know that it is a retinal neoplasm rising from the capillaries as glomeruli interspersed among arterial and venous branches so as to form an angioma; these cases are not arterio-venous aneurysms of the retina—whether true (traumatic) or false (non-traumatic)—nor are they of tuberculous origin, as at one time believed.

This angioma may provoke a more or less intense gliomatous reaction in the retina and result finally in retinal destruction, in choroidal atrophy with secondary ossification, in optic nerve atrophy and sometimes in glaucomatous phenomena.

But its evolution is always slow and apt to lead to diagnostic errors, above all in the advanced stages when the striking ophthalmoscopic picture of the outset is complicated and obscured by an appearance of retinal detachment, by pigmentary or atrophic lesions or even by hæmorrhages in the retina or vitreous.

We seize the opportunity of a case that we have observed for a year and a half to sketch some of the traits of this curious affection.

Mr. Hippolyte, aged 24 years, farmer, of l'Ariege, under observation since Feb. 28, 1910.

Hereditary antecedents.—Father and mother living, in good health, have never had eye disease. No miscarriages nor still births.

The oldest sister of the patient, now 38 years old, at the age of 15 discovered that the left eye was blind after six months of ear disease consequent upon a fever. At the age of 18 the right vision of this sister began to fail; an oculist proposed enucleation of the left eye, to save the right, but before the decision was made vision in the right eye was lost. Another sister, aged 26, married, is well and has good sight. She has a daughter 6 years old who is not sick.

Personal history.—Mr. Hippolyte has always been healthy; has no

recollection of ever being sick. Completed two years of military service as a sharpshooter.

He first noticed a mist before the eyes on February 23, 1910; five days later he came to the ophthalmic clinic where was noted o. u. v. = 1, physiological (?) *muscæ volitantes*. He consulted other oculists after that; we examined him for the first time on June 28, 1910, for we had no recollection of having seen this patient on February 28th. Our notes are: June 28, 1910, o. d. v. 1, feeble, + 0.50 improves it a little; o. s., v. 1, feeble, improved with + 0.50. The patient complains of smoke before the right and *muscæ volitantes* in the left eye.

Ophthalmological examination.—Media normal. **Right eye.**—Certain vessels of the papilla and retina, notably the inferior external artery (in the reversed image that which appears above and on the side of the macula), and likewise the corresponding vein, are markedly dilated and have a sinuous course. This appearance is very striking and suggests more advanced cases of optic neuritis as to the caliber of the vessels, but is distinguished from the latter because all the vessels are not turgescient, but only some of them. It is difficult to say whether this is an artery and a vein or two arteries, because the reflection at the middle of the vessel is very clear in both, the color is the same and there are no small lateral branches in this part of the course. Upon having the patient look down and a little to the right, while following the course of the inferior external artery, that was seen to end in a small round body a quarter of the size of the papilla, of regular contour and a pale rose color. It is indeed the color of the retina but lighter.

Our aquarelle,* made in August-September, 1911, shows not the early appearance but a phase of at least 15 months later. This body does not appear so protruberant. It is edged with a circumference clearly traced and maybe a little more pigmented, where we see emerging opposite their entrance, below as well as above, other arterial (or venous) branches which however are of normal caliber. It may be that a vessel runs along the edge of this body. Are there vessels in the interior of this rose spot? It is impossible to say.

A little below and within this round formation there is another spot, paler, like an atrophy, with less regular contour and an accumula-

*The Editor regrets that it is impracticable to reproduce the colored plates.

tion of pigment on the nasal side. Here again one sees on each side of this spot a slender vessel entering and leaving it which is visible only upon attentive examination.

Left eye.—The vessels of the papilla and of the retina, notably the superior ones, are much dilated and markedly tortuous. One of these arteries bends abruptly after a straight course, has a deposit of pigment at the level of the bend (not shown in the plate; later there was the appearance of a paler round body in the embrasure of this vascular elbow). Another branch of the superior artery of the retina is similarly interrupted in the middle of its course by a round body, brighter than the fundus but yet rosy, which much resembles that of the other eye. *R.* Potass. iod. internally, 1 gramme a day.

July 13, 1910.—Same ophthalmoscopic appearance. *R.* Temporal inunction of simple mercurial ointment, 2 grammes a day.

Aug. 24.—Same appearance. Slight lessening of visual acuity. The smoke still persists.

April 21, 1911.—Patient summoned for examination. Visual acuity diminished: o. d. v. = 1; o. s. v. = 1 —. Neither glasses nor stenopaic hole improve.

Characteristics of the fundus.—**Both eyes:** Certain vessels are very dilated, very sinuous, in places cork-screwed, the central reflex is everywhere very pronounced and the distinction between veins and arteries is difficult or impossible. Alongside these vessels are others which are normal.

Right eye.—The discolored spot (which is above in the reversed image) seems to have a narrow border of pigment; but what characterizes it above all are the afferent and efferent vessels of double contour, or more exactly of central reflex. One of these vessels seems to send a spur to the interior of the spot or decolored body.

On the nasal side and lower is a spot which more resembles atrophy surrounded by pigment, but it is manifestly of the same origin as the other.

Left eye.—Vessels equally dilated, sinuous and with central reflex. The lower ones (reversed image), show an analogous growth in the course of a vessel, but of redder color, as if from dilated vessels.

Sept. 6, 1911.—O. d., v. = 1; o. s., v. = 1. In the right, appearance practically the same. In the left, the bodies have become more numerous. Above (in the reversed image) two pyriform growths, arranged from above in echelon, the one larger, the other smaller. The vessels

arrive at one side and leave at another point of the periphery. In other parts of the retina this is established: at the level of the expansion of a very minute arteriole ("au niveau de l'épanouissement d'une minuscule artériole") one sees by transparency a small round bright spot in the retina and on the other side of this spot is lost another terminal of a small arterial branch.

We will say that these little bodies, at first scarcely visible, appear at the level of the junction of two terminations of vascular branches. We will say again that their appearance calls for the junction of the ends of vascular branches. We have thus seen a certain number of quite small specks, scarcely visible with capillary vessels on their two sides.

The visual field is contracted; toward its limit there are small scotomata. Colors are well recognized in central vision.

Instillations were prescribed of a solution of adrenalin, 1 to 5000, twice a day for ten days with interruption of ten days.

Nov. 4, 1911.—V., o. d., $1/3$; o. s., $1/3$.

Right eye.—Beside the lesions already described we find to-day in the more peripheral parts of the retina some new round bodies, very pale, appearing at the point where two vessels coming from two different directions meet after being gradually tapered. They form like claws embracing each side of the whitish spot.

Left eye.—Here again are new growths scarcely visible, situated between two vascular territories, while the larger bodies are bordered by vessels on three or four different sides. At one spot, a tortuous vessel elbows and surrounds one of these bodies leaving a white line at the limit between the vessel and the round body.

Subjectively, the patient always sees smoke in the center of his visual field, only lately the smoke has a great number of branches like the branches of a tree. These branches follow the direction of his sight, but do not go further than the line of vision. They remain always fixed when the sight is directed again in its preceding position.

Reviewing our case, the question is that of the origin of capillary angioma of the retina characterized by the occurrence in locations more or less distant from the papilla of little spots, bright in this instance, in the place where the retinal capillaries are presumed to be. These little spots are situated between an afferent and an efferent vessel. Gradually they increase in size and at the same time the vessels be-

tween which they occur become more apparent. Then we can perceive that as the bodies become larger there is a corresponding exaggerated development of the arteries and veins which are dilated, turgescient, tortuous. At this stage we can see more than two vessels abutting upon the same body even as two bodies may communicate by intermediary dilated vessels.

This affection begins very insidiously, provoking at first subjective troubles—a sensation of smoke before the eyes, mist, *muscæ volitantes* and, finally, at the end of several months or maybe a year, a lowering of visual acuity. Objective scotomata have been noted at the periphery of the visual field, it is true with some difficulty. In one case they developed simultaneously in the two eyes.

As antecedents, we find a sister blind in both eyes at the age of 15 and 18 years. The patient's affection began after his military service, at the age of about 23 or 24 years.

The ophthalmoscopic appearance at this stage of the disease is very characteristic and is similar to figures of analogous cases published in ophthalmic literature. Following is a very succinct résumé of such observations as seem comparable with ours.

ANALYSIS OF PUBLISHED CASES.

1. *Case by E. Fuchs* (5).—Man, aged 26. History of traumatism at the internal angle of the right eye. In retina, inferiorly, two large vessels very dilated and sinuous. In the first half of their course, in places great nodular enlargements between which the vessel is narrower than normal. The artery and vein disappear in a large rounded poorly defined patch. This place is slightly prominent, covered with blood spots and so obscured (“sombre”) that details cannot be distinguished. The distinction between the artery and vein is possible only by observing the lateral branches. No spontaneous pulsations. Light digital pressure causes a venous pulse, a stronger one also an arterial pulse, to appear. The round tumor has no pulsations, neither spontaneous nor upon pressure.

Remarks.—Fuchs discusses the causes of the arterial and venous dilatations. He believes it to be aneurism originally traumatic, but in such case only the artery or the vein should be dilated. Aneurism of the retina with dilatation of the two vessels has been observed (Magnus). What is more difficult for Fuchs to explain, is to know why this arterial dilatation is unequal in places and why among the venous branches some are dilated and not others.

v. Hippel (11) considered Fuchs' case the first authentic observation of retinal angioma. It is not then an aneurism, and the traumatism at the internal angle could not have caused it.

2. *Case of Darier (13)-Panas (16).*—Woman, aged 33. The trouble began at 10 years of age in the left eye, which had to be enucleated by Panas in 1886, ten years before the occurrence of the same disease in the right eye.

Right eye.—*Notes by Darier.*—For two years, *muscæ volitantes* and colored vision in the upper part of the visual field. Ophthalmoscopically, in the inferior external part of the retina a slightly prominent rounded mass, of a grayish white color with a large red spot in the center consisting of a plexus of very fine vessels; the retina appears elevated.

A large very sinuous vessel loses itself in two branches at the upper part of the neoplastic growth. Midway between the papilla and the tumor the vessels cross a large pearly white band. In the macula a small vessel terminates in an aneurismal dilatation.

The condition remains stationary for a year; then, starting from the white band (taken at first for a choroidal rupture), brilliant fibrillary trails form leading on one side toward the tumor and on the other towards the papilla.

Later, an irregular grayish mass occupies almost all of the fundus; here and there large vessels appear and disappear. At several points are red spots of hæmorrhagic splashes. The papilla is no longer visible, only three large vessels show where it was.

Left eye.—*Histological examination by Panas.*—At the age of ten years *muscæ volitantes* and halo around luminous objects. The loss of vision began in the lower outer part of the visual field. Enucleation at the age of 23 years.

Macroscopic aspect.—The interior of the eye is filled by a cystic mass, of lobulated surface, dotted here and there chalky white. There were straight vessels going from a center. Further, there were pale rose plaques furnished with tufts of very small vessels. The ensemble presents to the eye the appearance of a hydatid cyst. On pricking the sac a lemon colored transparent liquid, containing cholesterine and phosphates, escapes.

Microscopic examination.—The sac is formed anteriorly by the much thickened detached retina, posteriorly by the choroid which remains in its place. The thickened retina seems formed by fibrous tissue with

a mass of round cells ("grains") recalling those of the retina, and shows *large empty spaces*, kind of vacuoles, without walls of their own, as well as sections of large vessels whose walls seem thickened.

The newly formed tissue, mingled with that of the retina, is composed of:

1. Embryoplastic elements, turning into connective tissue ("en voie de transformation conjunctive").
2. Fascicular connective tissue in layers.
3. Vessels in great number lying principally between the anterior and posterior fibroid layers.
4. Disseminated pigment granules.

Remarks.—The case of Darier-Panas has been eliminated by Hippel from our group. We think that angioma can be pleaded. And first let us remember Darier's remark, that in the two eyes evolution has been excessively slow and the aggravation of the disease has not been due to neoplastic growth but to surrounding retinal changes. That is to say, the process apparently invades the retina by lateral extension ("de proche en proche") rather than in its thickness. The following arguments lead us to think of angioma in this case:

1. Beginning with *muscæ volitantes* and photopsies.
2. Very slow progress.
3. The age at which it commenced—10 and 23 years.
4. Both eyes involved.
5. Extension in surface and not in thickness.
6. Darier's plate showing round bodies.
7. Increase in caliber of vessels and thickness of their walls—according to Panas.
8. The existence of cavities whose contents could be secondarily modified, and above all of "great numbers of vessels situated in the interval between the two fibrous layers." Finally
9. The degeneration of the whole retina, its thickening without doubt gliomatous, and the conservation of the choroid.

3. *Dzialowski's Case* (4).—Man, aged 27. In his history, epistaxis; as prodromata: in March, 1894, greenish spot before the right eye, then gray clouds or *muscæ volitantes*. Aug. 17, 1897, o. d.—Disturbance of the vitreous, appearance of optic neuritis in the upper half of the retina, diffuse trouble, vessels dilated and tortuous with round red spots resembling hæmorrhages—in one we can follow a great vein. Small hæmorrhages of the papilla. Vision, fingers at 2 or 3 meters. O. s.—Normal.

Sept. 16, 1897, retinal hæmorrhage of the left eye. Retinal veins dilated inferiorly, red oviform spot connecting with the two branches of the vein; disturbance ("trouble") of the retina toward its periphery, hæmorrhages of the retina. Toward the macular region, another swollen ("en ballon") red body into which a sinuous artery runs with three small hæmorrhages; from it issues a dilated vein which loses itself in another round body bordered by a white line. Little white striæ are in the macular region and near the inferior temporal vein. An analogous body occurs in the course of the superior temporal vessels.

Remarks.—Dzialowski's thesis is not accompanied by a plate. His observations were taken in Giessen's clinic during the absence of Vossius. They were reported by Best during discussion at the Heidelberg Congress of 1903. Despite the appearance of the papilla, which resembles optic neuritis (as von Hippel remarked), one may well admit that the case belongs here, as much from the description of the round bodies as by their relations with the vessels. An important detail is that the left eye, whose acuity is still good, shows the disease commencing. We insist upon this bilaterality of the lesions.

4. *Leplat's Case* (15).—Man, aged 19.

O. d.—Annular synchia, soft cataract; maybe detached retina. Vision = 0.

O. s.—V. = 1. Superior (?) retinal arteries and veins dilated, very sinuous, of brownish red color ending at the periphery in a pale red spot contrasting with the darker color of the fundus. This spot with rounded contour is merged superiorly with a whitish plaque like the plaques of connective tissue which are sometimes found at the papilla. It protrudes at its summit about 5 diopters. The color of the two vessels is identical, but the artery is narrower than the vein; they can be distinguished by the little collateral branches which lead from them near the edge of the optic disk. Moderate pressure on the eye provokes pulsation of the vein; if the pressure is stronger pulsation of the artery may be seen. No anterior traumatism.

Remarks.—The author thinks this a congenital aneurism. v. Hippel, in 1904, classed this case with the two only authentic cases of the mysterious disease described by him, to which he adds, besides his two personal cases, only the brief mentions of Sattler, Wagenmann and Herzog.

We note again that here the disease had to be equally bilateral.

5. *Case by Hippel* (11).—A man, aged 23, presented 8 years earlier, that is in 1895, at the Heidelberg Congress, at which v. Michel considered it an intravascular tumor, then a tuberculosis.

O. d.—Beginning in 1893 with visual trouble, vision = 6/18 with scotomata, then in four months the sight fell to figures at 1 meter. Ophthalmoscopically, superior temporal artery and vein three or four times enlarged, sinuous, not distinguishable from each other, at the periphery run to a prominent yellowish white patch. Then in the neighborhood of these vessels a detachment of the retina develops, commencing at the periphery and running to the disk. At three or four places rise prominent round, red-yellow bodies into which will run a small arterial branch and from which will issue a little vein. No pulsation neither spontaneous nor upon pressure. In 1895 hæmorrhage in the vitreous. Since the beginning, in the vascular region a group of small pale spots and likewise along the little vessels. Termination, total detachment of the retina, cataract, lowered tension, total posterior synechia, iris colored green; vision = 0.

O. s.—normal.

Remarks.—A history of tuberculosis. This case is completely elucidated by the histologic examination which we will report below. Capillary angioma of the retina is really the question in point; this eye was enucleated 16 years after the commencement of the disease. As to the left eye, for ten years after the right was diseased it remained unaffected; no one can know what its ultimate fate will be.

(To be continued.)

Five Year Course for Medical Students. Hereafter, students in schools belonging to the Association of American Medical Colleges will be forced to take a five-year instead of a four-year course as at present. A resolution to this effect was adopted at the closing session of the Association at Chicago, on February 26, 1913.

There are now thirty colleges which enforce a two years' collegiate course preparatory to admittance to a medical college, and five others have adopted the same rule, effective January 1, 1914. The resolution as adopted raised the entrance standard for all the colleges in the Association, after January 1, 1914, to include a year of college work in physics, chemistry, animal biology and a modern language.

HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

DEPARTMENT EDITOR, PHILIP RICE, M. D.,

San Francisco, Cal.

Iridochooroiditis Serosa Subacuta.

E. H. LINNELL, M. D.

Mrs. C. H. D., aged forty-five, of rheumatic diathesis but in good general realth, first consulted me April 17th of the present year for an affection of the right eye of two weeks' duration. The condition was as follows:

Dull pain around the eye. Slight pericorneal injection. Iris of normal appearance; the pupil dilated evenly and fully under atropin. Tension normal; aqueous clear, but vitreous very cloudy, preventing any details of the fundus being seen with the ophthalmoscope. Vision only shadows. *Gelsemium* 6x was prescribed, a dose once in two hours, and dionin—gr. x—to the ounce of water—was given to be dropped into the eye three times a day.

One week later, she was free from pain and external inflammation. The vitreous was less cloudy so that the outlines of the disc and the retinal vessels could be seen, although indistinctly. Vision was 15/20. The posterior surface of the cornea was covered with minute brownish specks, but there was no apparent cloudiness of the aqueous humor.

The treatment was continued, and in ten days more vision was normal; the cloudiness of the vitreous was gone and no pathological changes could be discovered in the retina or choroid. On strong illumination but two minute specks could be discovered on Descemet's membrane and the patient was discharged.

No doubt dionin was a factor in her rapid recovery, but it seemed to the writer that gelsemium was equally if not more influential, for the case certainly got well much more rapidly than one would be led to expect from the literature of such cases.

A glance at the symptomatology of the remedy demonstrates its homœopathicity to this case.

Dimness of vision, amounting in many instances to complete blindness, is one of the most constant symptoms developed in the provers of gelsemium and also in cases of poisoning, both in men and animals. This loss of sight was attended by very feeble circulation, weak pulse and depressed heart action; autopsies have demonstrated venous hyperæmia of the brain and lungs. Edema is the result of passive hyperæmia and stasis of the circulation, so that it is logical to conclude that had ophthalmoscopical examination been made passive hyperæmia and edema of the tissues of the eyeball would have been demonstrated as the cause of the blindness.

Thus it seems to me reasonable to claim that the curative action of gelsemium in *serous inflammation of the uveal tract*, which has been frequently demonstrated by thoroughly trustworthy observers, is strictly in accord with the science and art of homœopathic therapeutics.

Liability for Professional Services. The Court of Appeals recently decided that a woman who called a physician and requested him to attend her daughter who was seriously ill and who was married and living with her husband, is not, in the absence of any express agreement to pay the physician for his services, legally liable therefor. The court states it as final that the physician in the absence of a special contract may recover upon the implied agreement to pay for his services only when they have been rendered at the request of the patient or at the request of the person who in the eye of the law is regarded as being under a legal obligation to provide such professional services for the patient, as for example a husband or the parent of a minor child. The court adds: "It will be a simple matter in cases where the physician is called upon to attend a patient at the instance of someone not standing in a responsible relation to the patient, to inform himself as to whom he shall look for his compensation." In other words, an express agreement to assume obligation is necessary. As this situation may arise frequently in the practice of any physician, an understanding in such a matter should be reached delicately and without offense at the beginning of the case.—*No. Am. Jour. of Hom.*, May.

CURRENT LITERATURE.

DEPARTMENT EDITORS.

WM. McLEAN, M. D.,
New York.

FRANK O. NAGLE, M. D.,
Philadelphia, Pa.

ANNALES DES MALADIES DE L'OREILLE, DU LARYNX, DU NEZ ET DU PHARYNX, Mars.

*1. L'évidement petro-mastoidienne partiel. E. Paul Boncour.

2. Le traitement de la rhinite et de l'adenoïte chez le nourrisson et dans la première enfance. Lautmann.

3. Expériences faites avec l'emploi de la méthode "radicale" pour le traitement des suppurations chroniques du sinus frontal, de l'éthmoïde et du sinus maxillaire. Fernand Muller.

*1. The techniques of Heath, Bondy, Schenemann, R. Botey and Mahu in the partial radical mastoid operation are given and compared. The author's conclusions as to the Heath operation are: Absolute contraindications—very old otorrhea, cholesteatoma, labyrinthine menace. Contraindications—exuberant granulations, extensive otitis. Indications—medium granulations, otitis limited to the aditus and antrum, perfect bone conduction ("audition solidienne parfaite"), Gellé positive, youth of the patient, deafness of the nonsuppurating ear.

Avril.

*1. De la trépanation du labyrinthe en dehors des pyolabyrinthites. Ricardo Botey (Barcelone).

2. Sur la fréquence relative du canal cranio-pharyngien chez les enfants et des jeunes gens, et sur l'importance de ce fait pour ma théorie. (Note préliminaire.) Citelli (Catane).

3. Quatre cas de papillomes laryngés diffus récidivants de l'enfance guéris par la laryngostomie. E. Halphen et F. Fontaine.

4. Abcès des cellules rétropétreuses. Pr. de Cigna (de Gênes).

5. Sur la topographie de l'antre petromastoidien et de son aditus chez l'adulte. Jacques Ramadier.

6. Le lavage du cavum pharyngien. Beal (du Mont-Doré).

*1. Surgery of the labyrinth is still in the stage of evolution. Established for suppuration, it is being essayed for other conditions in

the internal ear which, while not endangering life, cause persistent troubles and invite intervention. Often these are cochlear and vestibular at the same time, but sometimes are localized in the anterior or posterior labyrinth giving rise to disturbances of equilibrium without tinnitus, or to intolerable ear noises. Most are exclusively labyrinthine, seated in the neuro-epithelial terminals of the cochlear nerve in the helix and of the vestibular nerve in the ampullas of the semicircular canals. But, unhappily there are patients whose lesion is not peripheral, the labyrinth is not touched, but the lesion is of the nerve at the base of the brain or in the nerve centers. It is very easy to make an error in these cases. Two cases are detailed, operated upon, one peripheral the other central. The first demonstrates the possible cure by operation of aural vertigo and tinnitus, the other invites circumspection before operating. These central cases should be operated only when desperate and trying for a long time all local and general means—bearing in mind that it is very difficult and at times impossible to decide whether tinnitus, deafness and vertigo are central or peripheral in origin.

Opening the posterior labyrinth will suffice when the deafness and tinnitus are not marked. In such case one can open the antral end of the external semicircular canal and of the posterior canal by means of a large curettage of the antrum and cells without touching the auditory canal; this is perfectly possible—Botey has lately done this. One can also break down the posterior wall of the bony auditory canal yet preserve the tympanum, ossicles, the wall of the attic (“logette”), the promontory, vestibule and helix, as in the operation which I (Botey) call attic-conservative radical. These patients, so operated, will have no more vertigo and will not lose their hearing.

It is still very difficult to point out precisely the indications for vestibulectomy and cochleotomy. The author considers vestibulectomy not a very grave intervention (“peu grave”).

In syphilitic cases, so-called labyrinthine, as the trunk of the acoustic nerve is usually affected we should not operate; a rigorous neurological examination will often show that the vertigo and deafness are not labyrinthine in origin.

ANNALES d'OCULISTIQUE, Avril.

*1. Nystagmus latent. H. Fromaget.

2. Les ophthalmies contagieuses dans le Sahara oranais. H. Foley.

3. Recherches cliniques sur l'emploi du tonomètre de Schioetz (suite). A. Fourrière.

4. Luxation sousconjunctivale du cristallin. Rôle des muscles droits dans l'éclatement de la coque oculaire. Genet.

5. Lymphome de la paupière (mycosis fongoïde à tumeurs d'emblée, type Vidal-Brocq.). Dubois de Lavigerie et René Onfray.

*1. In May, 1912, a case of latent nystagmus was reported in that journal by Fromaget, who had not been able to find it described "in the classics." Three more have been found in less than a year and are here detailed. The author thinks this disease would prove to be not very rare were it looked for among young persons with low visual acuity. Fromaget compares it to latent strabismus, thinks it of supra-nuclear origin pathologically, to bad functioning of the coördinating centers whose education had been imperfect because of poor optic conditions (ametropia, corneal opacity, affections of the transparent media, congenital ocular paralyses) or because of a particular predisposition in these centers to function poorly; in such the tendency to fixation is educated with difficulty. In these cases the nystagmus appears during monocular vision; binocular vision is apt to be better than that in either eye alone. The nystagmus is apt to complicate or be complicated by strabismus. The nystagmic movements may be bilateral or of which ever eye is not closed.

KLINISCHE MONATSBLÄTTER FÜR AUGENHEILKUNDE.

April.

1. Zur Aetiologie und Therapie des Keratoconus. Dr. C. Augustein.

2. Ueber Persistenz von der fötalen Pupillar-membran. Dr. I. Strähli.

3. Ein Beitrag zur Bildung Rosettenartiger Figuren in der Netzhaut sonst normaler fatäler menschlicher Augen. Dr. B. Lindenfeld.

4. Ein Fall von eigentümlichem Binde gewebstrang um die Papille. Dr. Masudo.

5. Zur Kenntnis der gemeinen chromatopien. Dr. R. Hilbert.

6. Bruchstücke zur geschichte der Brille. Prof. Greef.

7. Ein elektromotorische betriebener und modifizierter Elliotscher Trepan. Dr. A. Vogt.

8. Zur Frage der anaphylaktischen Erscheinungen an der Hornhaut. Prof. Wessely.

9. Zur Literatur ueber Anaphylaxie in der Augenheilkunde. Dr. A. Szilby.

MEDICAL REVIEW OF REVIEWS, May.

*I. Illumination and eyestrain. Ellice M. Alger.

This is a paper read before the New York section of the Illuminating Engineering Society. Over lighting engenders fatigue from mental exhaustion and pupillary spasm, while under lighting results in the strain that follows sharp focusing and constant attention. We have all been using far more intense light than we need. One should begin with low illumination and gradually increase it till a point is reached when further increase ceases to improve the details of the work in hand. Beyond this, additional light is not only unnecessary but is physiological extravagance. It is very difficult to differentiate clinically the effects due to intensity of light from those due to its color or wave length. Ordinary spectacle lenses cut off the ultraviolet rays almost entirely, though they do not materially modify the light intensity. There is a new greenish yellow glass that scientifically protects from irritating rays with the minimum reduction of visual acuity. Next to this is amber glass—better than smoked, blue or green. It has been shown that the yellowish rays from the middle of the spectrum give the maximum illumination and the minimum of irritation. The retinal anesthesia and deep shadows resulting from poor artificial lighting are potent factors of industrial accidents. The light, even of ordinary incandescent lamps, concentrated at the cutting point of a tool or on a work bench is often several times the intensity of daylight; the workman turning from this, perhaps in a room full of moving machinery, is practically blind for a while.

A flickering light of varying intensity fatigues and pains the eye by causing rapidly alternating dilatation and contraction of the pupil.

There is good reason to suspect that the constant absorption by the lens of ultraviolet rays is one of the causes of cataract. Cataract, in people having one light and one dark eye, "invariably develops first in the eye not protected from light with pigment.

At the Oxford Ophthalmological Congress it was almost universally admitted that coal miners' nystagmus was due chiefly to bad light and that electric lighting is doing away with it altogether.

**ARCHIV FÜR LARYNGOLOGIE UND RHINOLOGIE, Band XXVI,
3 Heft, 1912.**

Die operative Behandlung von Hypophysistumoren nach endonasalen Methoden. Dr. O. Hirsch, Vienna.

With the exception of akromegaly the diagnosis of hypophysis diseases is frequently made from the typical visual findings by the ophthalmologist.

The "Arbeit" of Hirsch is of special ophthalmological interest for he records 26 cases of hypophyseal tumors operated upon within the last two years.

In all cases he employed the septal method—which consists in a submucous resection of Killian and opening up of the ethmoidal and sphenoidal sinuses.

The advantages of the Hirsch method over the other methods (above all the Schloffer method) are: (1) The operation can be performed under local anesthesia at one sitting. Only in very small nasal passages must a resection of the middle turbinate be performed.

With the exception of 4 cases of akromegaly where the ocular symptoms were of slight moment, the main indication for the endonasal operation upon the hypophysis was loss of sight—either in the form of a typical bitemporal hemianopsia, concentric narrowing of the visual fields or central scotoma.

Frequently the central vision was normal (in spite of the hemianopsias)—in three cases vision was reduced to light perception, and in 4 cases one eye was amaurotic.

Of the 26 cases operated, 23 had splendid results. Death occurred in 3 cases and of these one only was directly caused by the operation as result of hemorrhage into the third ventricle from the tumor mass.

One of the deaths was caused by pneumonia—8 days after the operation. The third death was due to septic meningitis.

Therefore the second advantage of the Hirsch operation is a lowered mortality rate—11.5%, as opposed to 37.8% of Schloffer, in 45 cases operated.

In 20 of 23 cases—the operation interference was successful in preventing further destruction of vision, trophic changes to disappear and enlarged parts of akromegalic patients to disappear.

There were but three cases in which the operation had no favorable influence. This was due to the tumor growing toward the cranial base.

Hirsch concludes by saying the results of the operation depend on

many factors—the diffusion of the tumor, regenerative power of the visual paths.

The permanent favorable cases are the strict sella tumors; these give rise more to symptoms of akromegaly than to visual disturbances.

The unfavorable cases are those tumors which grow toward the cranial base and where the sella turcica appears on the radiograph as a flattened excavation.

Cystic tumors (usually developing from adenomas, afford the best prognosis. An unconditional indication for operative interference, according to Hirsch, is loss of vision; for the present, akromegaly without visual disturbances is not a sufficient indication.

ABSTRACTS.

Local Anesthesia in Removal of the Tonsils. In a comprehensive article on tonsillectomy F. Hazlehurst, Jr., M. D., refers as follows to his method of anesthesia:

"In most of the local anesthesia cases I have used novocain (said to be one-eighth as toxic as cocain) in one-half per cent. solution and adrenalin 1-6000 solution. In only one case have I used cocain (one-half per cent.) and that was through the mistake of a nurse. About a dram of this solution is injected into the tonsil, above, below and in the middle. The needle is thrust into the tonsil until a feeling of resistance indicates capsular or the wall of the tonsillar fossa. The solution is injected into the tonsil itself rather than into the pillars of the tonsil, as is done by many, in order to avoid possible intoxication either from the novocain or the adrenalin, in view of the theoretical consideration that systemic absorption would be greater if the injection is made where the blood vessels are larger.

"The novocain and adrenalin combination seems eminently satisfactory. I have never observed any effects on the patient which could be unmistakably due to the drugs used. In a number of patients, especially in certain rather nervous women, there has been complaint of violent headache and a feeling of oppression in the cardiac region, usually accompanied by accelerated pulse and some grade of dyspnea; it has always been difficult to decide whether these phenomena were not evidence of shock induced by a rather natural fear and prolonged holding of the breath. The occasion when these symptoms were most prominent was immediately after the first injection before one would think there had been time for any systemic absorption.

"In an endeavor to eliminate even the doubtful toxic effect of the novocain I have employed quinine hydrobromide (one per cent.) with adrenalin 1-7000 in three cases, and antipyrin (two per cent.) with 1-7000 in four cases, with excellent anesthetic results. Bearing in mind that normal salt solution injected in large quantity, several drams to each tonsil, gives excellent results as far as anesthesia is concerned, I have used in seven cases diluted adrenalin solution 1-12000 in similar quantity, with fair anesthetic and good hæmostatic results. The hæmostatic effect of 1-6000 or 1-7000 adrenalin solution is excellent, and I

have seen no case where there was a postoperative bleeding which was masked at the time of operation by its use. It seems to me quite probable that such postoperative hæmorrhage might occur were the solution injected into the muscles of the pillars and the superior constrictor muscle in which run blood vessels of larger caliber. A decided advantage in the use of adrenalin in local anesthesia is that with little bleeding the apprehension of the patient is reduced to a minimum, whereas profuse hæmorrhage is apt to produce alarm. As a provision for the comfort of the patient, a nice sharp needle for use in injection need not be dwelt upon."

The healing of a mastoid wound is often accelerated by lengthening the intervals between dressings, allowing Nature to do her part in repair with minimal disturbance.—Brickner.

A Case of Ulcerative Keratitis Caused by the Bacillus of Diphtheria. The author reports a case of corneal ulcer due to infection with the Klebs-Loeffler bacillus—a laborer, aged sixty-nine years, complained of his left eye having been sore for some weeks past. The eyelids were congested and a moderate amount of puro-mucus discharge was present. There was no trace of adherent membrane. The cornea was ulcerated over the lower third, the surface of the ulcer slightly raised and composed of shining, grayish-yellow, sloughing material, with two or three flecks of what looked like blood clot. The upper part of the cornea was clear, and blood could be seen lying in the anterior chamber. Bacteriologic examination showed the bacillus diphtheria in practically pure culture. The ulcer continued to extend, in spite of local treatment, until fully half the cornea was involved and hypopyon was present.

A subcutaneous injection of 4,000 units of diphtheria antitoxin serum was given, with immediate improvement. Four days later the cornea showed a well cicatrized leucoma. This case is of interest in that an ulcer of the cornea of highly malignant nature, advancing markedly and rapidly, began to heal at once after a single injection of diphtheric antitoxin, cicatrizing rapidly, in spite of the age of the patient.—Dr. Leslie Buchanan, *Ophthalmoscope*.

One layer of the choroid, the membrane of Bruch, allows the passage of toxins but is impervious to bacteria and cells. The hyaloid membrane of the vitreous is also protective, but to a less degree than Bruch's membrane.

Intratracheal anesthesia (Meltzer) is quite acceptable for operations other than intrathoracic. The etherization is almost automatic, danger of over-etherization is minimized, and coughing, straining and mucous accumulation are obviated.

Prophylaxis of Ophthalmia Neonatorum. Schweitzer (Leipzig) has been experimenting to determine the silver salt most useful for general application for preventing ophthalmia neonatorum. The nitrate, originally proposed for the purpose, has excessive reaction. The several silver salts examined experimentally were placed in solution upon the web of frog's feet and upon the transparent tail of small fish and the changes induced were studied under the microscope. The examination showed that solution of nitrate of silver displayed its cauterizing action through the entire epithelium in a very short time; with the acetate the effect was slower deeper and after neutralization the superficial alteration was but slight; argentorium and argonin had less diffuse effect; with protargol and collargol the changes were only superficial and from using fresh sophol and argyrol the result was about the same. The bactericidal action of the acetate, of sophol and of argyrol is equal to, if not better than from the nitrate. The author believes that the *acetate* with neutralization fulfills all requirements of a good prophylactic against blenorrhea.—*Arch f. Gyn.*, Vol. 97, 101.

Heliotherapy in Laryngeal Tuberculosis. In the *Progrès Médical* of September 21, 1912, the results obtained in laryngeal tuberculosis by several French surgeons are mentioned. M. Collet, of Lyons, has successfully treated three cases. He turns the patient toward the sun with the mouth open so that the rays received on a laryngeal mirror, placed in the throat and controlled by means of a looking-glass, are reflected into the larynx. The head and eyes are protected by a large hat and dark glasses. The *séances* were frequently interrupted, and amounted at first to half an hour in the day, later to an hour. The first patient treated has been completely cured and has remained so for six years. He suffered from enormous infiltration of the epiglottis, arytenoids, and ventricular bands. The dysphagia disappeared in ten days. M. R. Alexandre first used the method just described, but abandoned it because he found it painful. He now places the patient with his back to the sun and reflects the rays on the laryngeal mirror from a concave mirror. By means of a plain mirror the patients ensure that the rays are properly reflected into the larynx. This they quickly and easily learn to do. There is a central aperture in the concave mirror by which the surgeon can observe that the method is being properly carried out. The laryngeal and concave mirrors are made of silver. The *séances* at first are of five minutes' duration, and are gradually lengthened to half an hour and an hour, with numerous pauses. They are given twice daily. M. Labouré, of Cannes, uses an artificial light obtained from an arc lamp. The good results obtained by these different observers are remarkable. A most beneficial effect is exerted on tuberculous ulcers and tumors. In the case of red diffuse infiltrations care is necessary, because they may be aggravated. This treatment of laryngeal tuberculosis was first brought forward in 1904 by a German physician to a sanatorium, Dr. Sörgo. Though the opportunities

for heliotherapy are not so great in this country as on the continent, it seems well deserving of a trial.—*The Lancet*.

Visual Symptoms of Accessory Sinus Disease. In many cases of ocular or cerebral involvement the orbital route to the accessory sinuses and to the cranial cavity is surgically the only logical one, whether followed by the ophthalmic surgeon or by the rhinologist under his direction or with his coöperation. In the diagnosis of accessory sinus disease the ophthalmologist has a serious responsibility. Many symptoms of progressive sinusitis and almost all of serious complications are ocular or orbital.

Careful special tests of visual function and the detection of a central scotoma or of anomalies in the neighborhood of Mariotte's blind spot may establish a diagnosis of accessory sinus disease before nasal symptoms have become sufficiently marked to attract attention. In many cases the oculist is the one first consulted on account of failing sight, obscure visual symptoms, scintillating scotoma, hemicrania, headache, asthenopia, or for treatment of inflammation of one or the other tissues of the eye, any or all of which may actually be due to suppuration in the accessory sinuses. It is his responsibility to recognize the ocular symptoms characteristic of such affections, and, conversely, to appreciate the importance of a thorough rhinological examination in obscure eye cases. This is the more important as actual nasal discharge or obstruction may be absent. The closed empyemas and mucocoeles being by no means devoid of danger to eye and brain, a superficial inspection of the nasal passages may lead to an unwarranted sense of security in this regard, and so be worse than useless. A free discharge of pus is not only a signal but often a safety valve as well, and tumors or caries and necrosis of syphilitic or tubercular origin may be as ominous for the integrity of the eye and brain as actual suppuration. In most cases it will be the province of the ophthalmologist to determine the presence of functional or organic ocular disturbances significant of accessory sinus origin, and for his rhinological confrere to decide by examination or exploratory operation the extent, character and gravity of the disease process in the accessory cavities.

Ocular indications of inflammation in adjoining cavities include objective signs as well as subjective symptoms or abnormal reactions to special tests of the visual field, fixation field, color and light sense, and so on. Besides this, we must consider the possibility of certain functional neuroses such as photopsia, attacks of migraine, vertigo, and ocular headache being dependent in the last instance on accessory sinus disease and only secondarily to involvement of the eye.—Percy Fridentberg, *Ophthalmology*, Jan.

Pathogenesis of Sympathetic Ophthalmia. (1) F. Deutschmann succeeded by inoculation with particles taken from the choroid of a human eye diseased with sympathetic ophthalmia in producing genuine sympathetic ophthalmia in monkeys and rabbits.

(2) He asserts that the exciting cause of sympathetic ophthalmia is a Gram-positive diplococcus; perhaps a modified sarcina.

(3) The second eye becomes diseased when the bacteria succeed in passing from the first eye into the lymph channels of the first optic nerve, past the optic chiasma, through the lymph spaces of the second nerve into the orbit.

(4) The course of the bacteria passing from the eye into the optic lymph spaces, and vice versa, is a two-fold one: either direct from the choroid into the intervaginal space, or along the anterior ciliary vessels from the eyeball, around it, within the musculature of the orbit, and eventually back of the eye along the central vessels into the spaces of the optic nerve, and vice versa.

(5) The chronic inflammatory changes in the meninges consist of circumscribed foci and cause no general symptoms.—*Annals of Ophthalmology*, July, 1912.

Voluntary Nystagmus. A young man, 20 years old, had first caused "dancing of the eyes" at the age of 7 to 8, and had since provoked and stopped at will, whenever he wished to satisfy himself that he was still able to do it.

The movements were horizontal, sharp, and rapid, twenty to thirty in ten seconds. During the nystagmus there was marked contraction of the pupil, which assumed a markedly oval shape with the long axis vertical. The rapidity of the movements precluded the determination of a possible hippus. The moment the movements ceased the pupil again became round. Slight spasmodic contractions of the lids were also noted. In order to start the nystagmus the patient concentrated his mind on his eyes; this he could not do over a long time without causing himself great fatigue. During the nystagmus there is no deviation of the eyes. The eyes are generally in the primary position, but nystagmus is possible in all positions except the extremes. It can also be produced when the eyes are closed. During the nystagmus the vision is lowered, objects appear deformed. After a few minutes of nystagmus the patient experiences vertigo, from which however he quickly recovers. The patient has never had involuntary nystagmus; his vision is normal and he is an emmetrope. There is no strabismus, no insufficiency nor muscular paresis. The amplitude of movement is normal and there is no diplopia, not even during the nystagmus. Family history and general health excellent. Weekers does not consider this voluntary nystagmus an example of voluntary inhibition of the cerebral centers, but as a manifestation of the nervous excitation of the supranuclear centers for the eye movements.—*Archives d' Ophtalmologie*.

Glaucoma Following Cataract Extraction and Discission. The following varieties of glaucoma follow cataract operation: 1. Glaucoma due to incarceration of the capsule in the wound, resulting in (a) serous iritis, (b) chronic inflammatory glaucoma. 2. Glaucoma due to immi-

gration of epithelium through the wound of the iris. 3. Glaucoma after discission. As an example of the first variety Stoelting gives the clinical and pathologic findings in one of his cases. There was associated serous iritis. Group (b) includes those cases occurring later after operation, which cases resemble the clinical picture of chronic inflammatory glaucoma; the majority of cases come under this heading. Increased tension seems to follow discission after simple extraction oftener than when performed after combined extraction. These discission glaucomas, however, are seldom followed by serious consequences. They have been attributed to swelling of the lens and traction on the ciliary processes by the luxated capsule (v. Graefe), and to vasomotor irritation with resulting hypersecretion (Bowman).

Glaucoma after discission is an extremely rare complication and when it does occur it is of benign nature. The combined operation is more apt to be followed by glaucoma and by glaucoma of a serious variety. Stoelting questions the importance of iris prolapse in the etiology of postoperative glaucoma, referring to Holth's investigations and to Schweigger in support of this view. The incarceration of the capsule is the important factor. This is often favored by attempts at reposition of the sphincter angles. This inclusion leads to nerve irritation and to hypersecretion.

Extraction should be performed without iridectomy; if iridectomy is absolutely necessary it should take place after the removal of the lens; or, better still, extraction should be followed by a small peripheral iridectomy. S. favors scopolamin-morphin anesthesia.—*Archiv für Ophthal.*

The Pharyngeal Tonsil, This, says Dr. John N. Mackenzie, professor of laryngology and rhinology in the Johns Hopkins University, is **not a lymphatic gland.** It appears in the fourth month of embryonic life, attains maturity at the close of the first year of infancy, and about puberty tends to diminish in size. It does not develop as a lymphatic gland from a plexus of pre-existing lymph vessels in the mesothelium. It develops as an ingrowth of endothelium of the primitive pharynx from the second branchial pouch, resembling the thymus and thyroid which originate respectively from the third and fourth branchial pouches. Its function is still unknown. "It cannot be stated [demonstrated] whether it forms a battle line against the passage of infection from the throat to the neck." He considers the role of the tonsils as portals of infection to be greatly exaggerated and protests against their indiscriminate removal. The adhesions and contractions sometimes following tonsillectomy, even in the best of hands, often ruin the singing voice. Prof. Mackenzie considers this a dangerous operation, to be performed only in a hospital, the operator should be alive to the fatalities which have sometimes followed.—*Lancet.*

SOCIETIES.

AMERICAN HOMŒOPATHIC OPHTHALMOLOGICAL, OTOL- GICAL AND LARYNGOLOGICAL SOCIETY.

PRESIDENTIAL ADDRESS.

GEORGE A. SHEPARD, M. D., O. ET A. CHIR.,

New York.

Fellow members, I esteem it a great honor that you have conferred upon me the power to direct the policy of this Society for the past year. Although the real strength of such an organization rests upon the rank and file, the responsibility for any change of policy, which may raise or lower the standard of preceding years devolves upon the officers.

This responsibility has a sobering effect and leads us to question more closely as to the true value of these national meetings. Is it to have a large attendance, a great number of papers, or even a mass of practical suggestions which we can take home to help us in our daily work? This, from a material standpoint, constitutes a satisfactory meeting. But after all, does it fulfill the purpose for which such societies are formed? Is there not an absence of that idealism which makes for true advancement in the world? Which is the more valuable, to have simply our memory-boxes filled with what Dr. A or Dr. B has done under certain conditions or to feel that we are living in a larger world with greater opportunities and greater responsibilities toward our fellow men?

With broader outlook we realize the narrow groove which we have worn, and with renewed courage and strength we lift ourselves to a higher plane in our professional life. The following quotation from Wm. George Jordan's "What is Happiness" states a great truth: "For what a man *has*, he may be dependent upon others; what he *is*, rests with him alone. What he *obtains* in life is but acquisition; what he *attains* is growth." What we want is growth, year by year, in our power to unravel the mysteries of the human economy and direct the cure of the individual by moral or physical means. An operation may be technically perfect and yet the result disappointing because of the sur-

geon's ignorance of certain psychic faults in the patient. A surgeon tends toward the state of mind which considers that success is attained by perfect operative technique while the enthusiastic prescriber often ignores the very obvious call for operative measures. In a frontal headache the rhinologist sees sinus trouble or a septal spur; the oculist is certain of the existence of eyestrain; the orthopedist, possibly fallen arches; the internist, a congested portal circulation. This is all very human, very natural. We see the same thing in the plant world. The farmer has been slow to learn the need of rotation of crops which is necessary if he is to get the greatest efficiency from his soil. In flora culture, it is necessary to rogue the flowers very carefully for some plants which, having reverted to their original types, will affect the whole crop. Often during this careful examination for rogues there will be discovered a sport which becomes the parent of a greatly improved variety.

The artist with a cubical mind can see nothing worthy of reverence in the works of Rembrandt or Von der Meer. The Wagnerian devotee looks with pity upon those who love the Italian love songs, while the crash of cymbal and drum, so dear to the Teutonic heart, causes shudders to run down the spines of those who have been fed on more melodious strains.

All professions are subject to the same weaknesses as ours. In religion the spirit of the doctrine is often lost in too close following of the inessential forms or words. The lawyer, in his search for technicalities, has almost forgotten that the only reason for his existence is that the law may be carried out with justice to all.

A man does well if he accomplishes his allotted task with the instruments given him by others, but how much better is he if, in addition to this, he adds something to the sum of human knowledge. In order to do this he *must* be something of an idealist. Even as the astronomer discovers a new heavenly body by noting the variation in the orbits of other known bodies, so the observant physician is led on to a new understanding of the previously hidden possibilities of his great profession. In these days of many books and magazines, it is possible to keep in touch with what is being done by others without having that knowledge inspire us to greater personal efforts.

The annual meeting should bring that inspiration which is found by the Christian student at Northfield, by the artist in Paris and Rome, by the physician in Germany, and by the golfer at St. Andrews. We

cannot deny that there is an atmosphere in these places which is not material, but yet has a powerful psychic influence over one who is not absolutely out of tune with his environment, spurring him to higher ideals of thought and action. A man's whole life may be changed by a realization as to what is worth while. He may go back to his old haunts but he cannot shake off the feeling that he is capable of better work, real creative work. I tell you, fellow members, that this new vision is worth while as it often makes us realize what has been passing before our unseeing eyes, it helps us to set the sail and steer a straight course.

“One ship turns east and another west
With the selfsame winds that blow;
'Tis the set of the sails and not the gales
Which tell us the way to go.”

The foregoing remarks have been general in character—now let us come down to our own particular society. If we are to justify our existence, we must see that every meeting inspires us to be better physicians, better homœopaths and better specialists. Our patients must see us newly inspired after each annual meeting, more keen in observation, more optimistic as to our powers, more resistant to the deadening influence of the humdrum of practice.

Now, how is this to be accomplished? The following propositions must be conceded by all: 1. That we are physicians, privileged yet bound by all those high standards which have been our birthright through the centuries and now are voiced in our codified ethics.

2. That we are homœopathic physicians who have an immense advantage in their ability to handle disease by therapeutic measures.

3. That we are specialists who have eliminated from our minute consideration those affections of the body not definitely connected with one organ or locality; thus giving our finite minds opportunity to know all that is to be known of our own business.

Presentations of this society should have the ethical and scientific atmosphere which is so inspiring to a body of earnest thinkers and the value of homœopathic therapeutics must be given a prominent place.

Now there is a limit to the amount of food that the average brain can assimilate in three days; hence the number of papers should be kept within practical limits. A paper which is the result of years of thought and investigation cannot become the property of the audience by its simple reading. It must be discussed, dissected and questioned, in order

that the bias of the writer may be eliminated, whether the bias is temperamental or local. This wholesome handling sharpens the wits of all and causes a person to hesitate in making statements that cannot be substantiated by facts. Finally the subject matter becomes an integral part of the minds of the audience, and not simply a memory. It is disheartening to a writer, after spending much thought and effort on a paper, to have no time left for its proper discussion. The result is that he goes home fully resolved never again to waste his time in preparing a worthy paper for the society. It has often been remarked by others, and I myself have noticed, that a paper is often more ably discussed by a little knot of men who remain after the session has closed than it was at the proper time. This careful consideration of the paper, pro and con, may decide some member to take up a new line of investigation on the same subject and present it at a future meeting. Probably each one of us has some particular line of work which has problems of special interest and we only need the inspiration of the spiritual discussion in order to lead us to formulate our thoughts, weigh them carefully and present them to the society and possibly to the world. Our membership should not be satisfied with merely recounting routine experiences of practice, even though they may be valuable, but there should be a certain amount of original work done. The society should take account of such original work, examine carefully as to its value, and if it passes satisfactorily this test, the investigator should be honored by the society as one who has added something to the sum of human knowledge.

I would ask that the society appoint a committee to examine the field and make recommendations for research work. Such a committee could not only bring to our attention new subjects for investigation but also might designate some member as being well fitted to carry on a certain line of work.

AN APPEAL TO THE AMERICAN MEDICAL ASSOCIATION.

Editor JOURNAL OF OPHTHALMOLOGY, OTOTOLOGY AND LARYNGOLOGY:

The enclosed letter has been sent to the President and Secretary of the American Medical Association, and I am notifying you of the fact in order that you may apprise your readers of one of the things which should come before the House of Delegates at the next meeting of the A. M. A.

The American Institute, of whose committee I am Chairman, thinks this matter is of great practical importance and ought to be taken up and carefully and scientifically investigated. To do this we need the help of the largest organized body of American physicians. As our letter states, "this work should be managed by the whole medical profession, not by any single branch."

Trusting for your coöperation and support in order to inform them of the fair and broad spirit in which the American Institute wishes the subject considered, I beg to remain,

Yours very truly,

H. D. SCHENCK, M. D.,

Chairman for the Committee of the American Institute of Homœopathy.

May 20, 1913.

75 Halsey St., Brooklyn,

May 17th, 1913.

To the President and Secretary of the American Medical Association:

GENTLEMEN:—In 1908 the undersigned were appointed a Committee by the American Institute of Homœopathy to present to the American Medical Association on behalf of the homœopathic profession of the United States a proposition for a *joint* investigation of the scientific merits of the method of drug selection expressed by the formula "Similia Similibus Curentur."

The Committee has presented the matter to individual members of the House of Delegates, but we believe the matter has never been regularly presented to the House or to the Association itself as a whole. We request that you bring the matter up for consideration and early action by both. For the following reasons it seems to us a subject worthy of your serious thought:

This rule has governed the selection of drugs in the treatment of disease by a considerable number of medical practitioners for over a century. We feel that the time has come when this formula should be brought before the whole medical profession, carefully investigated by modern scientific methods and a determination made of the exact value of this method in the practice of medicine. We seek this:

First, Because the voluntary testimony of a large number of physicians who do not understand the correct application of this method indicates their desire to make use of it.

Second, Because a large number of men who attempt its use ought to be able to get a better understanding of its true significance.

Third, Because we believe a large majority of the medical profession would have their power to benefit the sick largely enhanced by a thorough knowledge of this method.

Fourth, Because we believe that suffering is lessened and sickness more speedily and comfortably terminated through drugs administered according to the rule of similars.

Fifth, Because we feel that a careful investigation of this subject belongs to the whole medical profession and not to any single branch of it.

Sixth, We feel that such research regarding the formula of similars is desirable. Because the exactness of modern science with the present means of investigation, together with the accurate observation of the subjective as well as the objective symptoms, make it expedient to investigate the action of many drugs coming into use at the present time, as well as to re-examine those long proven.

For the above reasons we pray that your organization appoint a Committee of Five to meet a like Committee from the American Institute of Homœopathy to discuss this subject with a view of attempting a demonstration of the accuracy of the theory of similars, or of proving its falsity.

It seems to us that its joint investigation should be made under the auspices of some research laboratory like the Rockefeller Institute of New York or the McCormick Institute of Chicago. These Institutions have the experts necessary for such a test; with trained eyes they could follow its course from start to finish. Whether the result of the particular investigation should prove satisfactory or not, the effort would not be wasted because a list of drugs in common use among the members of your Association as well as ours can be selected for this study of their physiological action. These accurate observations would be of permanent value to both schools.

After careful investigation of the effects of these drugs in different strengths upon the human body, as well as observing their poisonous effects in animals, an extensive trial of their therapeutic efficacy should be made in some of the large public hospitals to test the action of these remedies in exemplifying this theory of drug administration.

In recent years every effort has been made to unite the medical profession. A large number of legal practitioners is kept from affiliation because of its belief in a method of drug selection, the truth of which is questioned by the majority. Let us make a thorough test of this

hypothesis. If it be proven true, humanity will be benefited by the enlarged and improved armamentarium of all physicians; if it be disproven, the last obstacle to medical union will have been removed.

To the end, therefore, that the truth be established, let us put this theory to the test proposed. Naturally we feel confident that the principle will be established, but in the interest of mankind we request that you join us in a scientific demonstration of the truth or falsity of the theory of cure promulgated by Samuel Hahnemann.

Respectfully submitted,

(Signed.) HERBERT DANA SCHENCK, M. D., Brooklyn,

Chairman.

J. B. GREGG CUSTIS, M. D., Washington.

WILLIAM RUFUS KING, M. D., Washington.

ROYAL S. COPELAND, M. D., New York.

FRANK RICHARDSON, M. D., Boston.

ALONZO C. TENNEY, M. D., Chicago.

FRED. W. WOOD, M. D., Chicago.

BENJ. F. BAILEY, M. D., Lincoln, Neb.

THE FOURTH INTERNATIONAL CONGRESS ON SCHOOL HYGIENE,

The first of its kind in America, will be held in Buffalo, August 25th to 30th, inclusive, for the promotion of the child, the school, and consequently the community. There will be papers, discussions and exhibits covering the entire field of school hygiene, and the delegates will be well entertained.

All the leading nations will be represented, and every college and university of note in this country as well as other educational, medical, scientific and hygienic organizations.

The Congress is open to all persons interested in school hygiene, upon payment of a five dollar membership fee.

The Congress is "under the patronage" of President Woodrow Wilson; its president is Charles W. Eliot, president emeritus of Harvard University, and there is a long list of eminent vice presidents and other officers. Applications should be sent to the Secretary-General, Dr. Thomas A. Storey, Professor of Hygiene, College of the City of New York.

THE MEDICAL SOCIETY OF THE COUNTY OF KINGS (N. Y.) has appointed a Publicity Committee:

1. To prevent the publication in the daily press of misleading and erroneous statements on medical topics.
2. To prevent the publication of cures and surgical operations so exaggerated and false that mental anguish, physical suffering and expense would be imposed upon the sick and afflicted.
3. To prevent the reporting of ordinary medical cases and surgical operations of no interest to the profession which are misunderstood by the public and serve but to exploit the narrator.
4. To act as an advisory committee, if so desired, to members of the Society who contemplate publishing medical articles in the newspapers and who desire to conform to the code of ethics.
5. To further the publication of scientific articles on medical subjects relating to the public health.
6. To seek the coöperation of editors of the daily press to accomplish these purposes.

The committee desires it to be understood that they do not discourage publicity but, on the contrary, advocate the greatest publicity possible on the liberal, ethical lines of the American Medical Association, which encourages members of the profession to give as wide publicity as possible to all matters pertaining to hygienic, sanitation and the public health, but discourages all direct or indirect self-advertising. The committee recognizes the futility of any attempt on its part to dictate to the press what it should or what it should not publish. It is thought by the committee that the adoption of these suggestions will relieve members of the Society of any fear of criticism and will aid representatives of the press in securing interviews without difficulty.

The committee wishes it thoroughly understood that it will in no sense act as a complainant body against offenders, but will most willingly extend its advice to those who voluntarily seek its aid.—*L. I. Med. Jour.*, May.

INSTITUTIONS.

COLLEGE OF THE NEW YORK OPHTHALMOLOGICAL HOSPITAL.

Dear Doctor:—In a few weeks you will receive a copy of the 35th annual announcement of the course to be given on diseases of the eye, ear, nose and throat at the New York Ophthalmic Hospital during the session of 1913 and 1914. It is our aim to make this course as comprehensive as possible and to embody in both didactic and clinical instruction advanced methods of teaching, and thus to assure for it the approbation and support of the profession generally. As you are aware, its purpose is to prepare physicians to do skillful work in the special fields of medicine covered by the curriculum, and we are pleased to be able to state that the professional standing of our graduates has always been such as to reflect credit on the institution. Each year the course of study is critically examined by the faculty, with the purpose of keeping it in the vanguard of medical progress and adapting it to the most advanced methods in diagnosis and treatment as they affect our specialties.

During the past scholastic year, we have added courses in bacteriology and operative work on the cadaver, exemplifying the surgical technique of the eye, ear, nose and throat, which courses have been received with marked appreciation by the members of the out-going class.

There is a wealth of clinical material at our disposal, which affords our students every opportunity to become expert in diagnosis and treatment.

We earnestly desire your continued interest and coöperation; should you refer students to us it will be our endeavor to merit your confidence and support.

Yours very truly,

CHARLES DEADY, M. D.,
Dean.

W. C. McKNIGHT, M. D.,
Secretary.

Cornell University Statistics, Eye, Ear, Throat, Nose. Dr. S. A. Munford and his assistants examined 1,328 entering men of the class of 1916:—Of these, 416 wear glasses (31.3%); 636 have vision 6/6 or better (47.8%); 247 are myopic in both eyes, 11 in one eye; 9 are blind in one eye; 135 were referred to an oculist at first examination. 1 has pterygium; 1 trachoma; 9 "granular" lids; 1 ptosis; 1 traumatic cataract; 1 exophthalmos (goiter?); 1 nystagmus; 1 scotoma scintillans.

Twenty men are "deaf" in one ear and 5 in both ears—so deaf that the patient is cognizant of it.

375 have one or both tonsils enlarged. 1 cleft palate; 9 bifid uvula.

484 short course men, entering in the fall, 1913:—111 wear glasses

(22.93%) ; 80 need glasses ; 253 have vision 6/6 or better ; 74 myopia, 11 myopia in one eye ; 8 blind in one eye ; 2 deaf in one ear ; 139, large tonsils ; 1 bifid uvula ; 1 cleft palate ; 1 goiter.

A very thorough paper by Dr. M. Dresbach, of Ithaca, in the *Medical Record*, Aug. 3, 1912, discussed "Examinations of the Eyes of College Students," gave the following results and also a couple of pages of bibliography :

TABLE OF STATISTICS.

From examination of 3,326 regularly enrolled men, by Dr. Dresbach.

The asterisk printed after the numbers in the right hand column indicates that glasses were worn.

Astigmatia—simple and compound.

(1) 2484	(2) 842*
Per cent. with hyperopic type . 87	Per cent. with hyperopic type . .50
Per cent. with myopic type . . 8	Per cent. with myopic type . . .39
Unclassified (including mixed astig., doubtful diagnoses) .30	Unclassified cases 8
	(as in division 1)

Astigmatia (hyperopic type).

(3) 2161	(4) 427*
Per cent. with acuity normal in both eyes89	Acuity normal in both eyes, 60 per cent.
Acuity subnormal in both eyes. 5	Acuity subnormal in both eyes, 32 per cent.
Acuity in left eye normal but subnormal in right 4	Acuity normal in one eye, subnormal in other8 per cent.
Vice versa 2	Acuity reduced to 20/40 or less in one or both eyes19
Acuity reduced to 20/40 or less in one or both eyes10†	

Astigmatia (myopic type).

(5) 222	(6) 320*
Acuity 20/40-20/100 both eyes, 34 per cent.	Acuity 20/40-20/100 both eyes, 50 per cent.
Acuity 20/40 or less one eye, 13 per cent.	Acuity 20/40 or less in one eye, 6 per cent.
Acuity 20/100 or less in one or both eyes4 per cent.	Acuity 20/100 or less in one or both eyes2-3 per cent.
(7) Asymmetric and mixed.	(8) Anisometropia.
Percentage asymmetric axes in hyperopic eyes (yr. 1910) with normal vision40	Total percentage with unequal visual acuity in the two eyes due to errors of refraction, including both myopic and hyperopic types, amounting to 0.25 d. or more (no glasses worn)10 per cent.
Percentage of axes at or near 180° in asymmetric class . . .50	
Mixed astigmatia, with v. = 20/40 or less—approximately 2 per cent. of those with subnormal vision.	

†Percentage calculated from those with subnormal acuity.

9. Emmetropia.

Total *number* in whom no refractive error below 0.25 d. could be demonstrated 18 or 20.

Hyperopia and Myopia.

(10) Simple hyperopia and myopia (glasses not worn), 2.0 per cent.	(11) Simple hyperopia and myopia (glasses worn), 3 per cent.
Myopia of 5 d. or more—a half-dozen cases.	Myopia of low degree, 88 per cent.
Proportion of hypertropes to myopes among those who have subnormal vision: Hyperopes slightly in excess.	Myopia of medium degree, 6 per cent.
	Myopia of high degree, 12 per cent.
	Cases with one eye myopic and one hyperopic30

Miscellaneous Data.

(12)	
Percentage of 3326 students wearing glasses27	Percentage of students who have never consulted a specialist40
Percentage wearing glasses constantly3 or 4	Percentage with symptoms of eye strain (no glasses worn), approximately25
Percentage of 842 wearing glasses needing change of lenses 40	Showing symptoms and glasses worn22
<i>Number</i> blind or practically so in one eye15	Muscular imbalance of 5 degrees or more (no glasses worn)2 per cent.
<i>Number</i> totally blind in both eyes (year 1911-12) 6	Nystagmus1 case
Percentage with weak accommodation (no glasses worn) 4	DiplopiaSeveral
Total per cent. with subnormal acuity30	

Women Students (360 examinations).

(13) 205	(14) 155*
Vision normal both eyes, 70 per cent.	43 per cent.
Hyperopic astigmatia, 88 per cent.	Hyperopic astigmatia, 40 per cent.
Myopic astigmatia7 per cent.	Myopic astigmatia ...50 per cent.
Unclassified astigmatia, 3 per cent.	Unclassified10 per cent.

Miscellaneous Data.

(15)	Women who have never consulted a specialist40 per cent.
Percentage of those not wearing glasses who showed symptoms of eye strain36 per cent.	Asymmetric astigmatia, vision normal (no glasses), 42 per cent.
Showing symptoms and glasses worn26 per cent.	Anisometropia (no glasses), 12 per cent.
Number of serious cases of eye strain28	Simple hyperopia and myopia (no glasses)2 per cent.

(16) Short Course Students (agricultural).† Total, 1,091.

Hyperopic astigmatia, 77 per cent.	Glasses wrong40 per cent.
Myopic astigmatia17 per cent.	Showing symptoms (no glasses worn)13 per cent.
Unclassified astigmatia, 6 per cent.	Marked anisometropia but no symptoms7 per cent.
Never examined by oculist, 50 per cent.	
Wearing glasses12 per cent.	

†Mainly from rural districts, and attending courses for 12 weeks only.

BOOK REVIEWS.

SURGERY OF THE EYE. A HANDBOOK FOR STUDENTS AND PRACTITIONERS. By ERVIN TÖRÖK, M. D., Surgeon to the New York Ophthalmic and Aural Institute; Ophthalmic Surgeon to Beth Israel Hospital; Consulting Ophthalmologist to the Tarrytown Hospital, and by GERALD H. GROUT, M. D., Assistant Surgeon to the New York Ophthalmic and Aural Institute; Instructor in the Eye Department, Vanderbilt Clinic; Consulting Ophthalmologist, Bellevue Hospital, First Division. Cloth, $9\frac{1}{2} \times 11\frac{1}{2} \times 6$ inches, 507 pages, 509 illustrations, 101 in colors and 2 colored plates. \$4.50, *net.* Lea & Febiger. Philadelphia and New York. 1913.

Books like this, limited to the surgery of the eye, with others confined respectively to diagnosis, bacteriology and treatment emphasize the development of ophthalmology. Part one treats of Surroundings and general preparation for eye operations, with a second chapter on Instruments and their management. We are surprised that no attention is paid to needles and sutures, good judgment in the selection of which is so important in muscle advancement, corneal and scleral stitching and plastic operations. The remaining twelve chapters—part two—give the surgical anatomy of the eyeball, operations on, respectively, the cornea, sclera, iris, lens, lids, lacrimal organs, conjunctiva, globe, muscles, orbit, and foreign bodies.

The clinical diagnosis, indications for choice of operation, description of operation and after-treatment are carefully considered and clearly portrayed. The abundance of excellent illustrations is of material assistance.

Our authors sterilize cocain, atropin, pilocarpin, "etc," by boiling half an hour, but the reader is cautioned not to boil cocain more than once or twice because "prolonged and repeated boiling weakens the solution and makes it irritating." The student therefore is given the option of sterilizing cocain solution by adding, the day before, "bichloride in the proportion of 1 to 10,000;" and in illustration is proffered the following prescription where it is in the proportion of 5 to 10,000:

R. Cocain hydrochloride	0.5	gramme.
Bichloride of mercury.....	0.005	gramme.
Distilled water	10.	grammes.

The student is taught to instil anesthetics (but no exception is made for atropin) "near the inner canthus" and "after the drop has been instilled it is well to pull the lower lid down and outward, or to exert pressure with the forefinger for about one minute on the lacrimal sac so that the drop may not enter the nose and pharynx." They have found that silk sutures are well borne by the cornea and cause no reaction, if they do not enter the anterior chamber.

We are sorry to see that the old, unscholarly term astigmatism is adhered to instead of the proper *astigmia*.

ELECTRICITY IN DISEASES OF THE EYE, EAR, NOSE AND THROAT with Illustrations. By W. FRANKLIN COLEMAN, M. D., M. R. C. S., Eng. Ex-President of, and Professor of Ophthalmology in, the Postgraduate Medical School of Chicago. Ex-President of The Ophthalmological Society of Chicago. Professor of Ophthalmology in The Illinois School of Electrotherapeutics, Chicago. The Courier-Herald Press. 1912. Chicago.

This six hundred page volume is the first giving a collation of the methods in which the electrical modalities are used for all the divisions of the head specialties—the eye, the ear, and the nose and throat—“*Precis D'Electrotherapie et de Radiotherapie Ocularis*,” by Leprince, was the original work on electricity for the eye and Dr. Scheppegegrell's “Electricity in Diseases of the Nose, Throat and Ear” covered these three subdivisions.

The author's plan is comprehensive, commencing with a clearly portrayed section on the essentials of elementary physics of therapeutics followed by the method of administration for the certain disease and he finally ends with clinical reports of cases demonstrating the individual methods.

We wish to endorse the broadmindedness of the author, particularly as he includes the experiences of electrotherapeutists of all schools. On page 399 *e. s.*, extensive references are made to Dr. Fellows' and Dr. George's (Chicago) experiences with the sinusoidal high frequency and other currents in eye diseases; the reviewer finds his own aural shield on the vacuum high frequency electrode illustrated on page 413.

The publishers have fully performed their part in placing not only the text but numerous well produced illustrations on a moderately calendared paper conducive to study.

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No. 8

EDITORIAL.

CHOROID OR CHORIOID?

FOR the last year or so there may have been noticed in medical literature the latter spelling of this word—with an extra *i*; the fad seems to be slowly increasing. Can it be that some adopt this spelling because they fancy it must be more scholarly?

In 1880, when studying for his degree in ophthalmology, the writer asked “Why not say and write chorioid if the word is derived from chorion?” No one did so then, nor have they until now.

Dorland's Illustrated American Dictionary (1903) says: “Chorioid, The more correct form of the word choroid.” Gould, in The Practitioners' Medical Dictionary (1907), says only: “Chorioid, see choroid.”

But the word chorioid is not to be found in either the Standard, the Century, nor in Murray's New English dictionaries. Murray—as does also the Century—gives the derivation of choroid as from the Greek *choroeides*, *χοροειδής*, “corrupt reading for *chorioeides*, *χοριοειδής*, resembling the chorion in form and vascularity,” while Liddell's Greek lexicon says: “*χοριοειδής*, like the afterbirth, sometimes corruptly written *χοροειδής*.”

Dorland gives no authority for asserting that chorioid is “the more correct” form; if it were so, may we not assume that Murray would not have ignored it in what is confessedly the leading dictionary of the English language?

The writer tries to be somewhat of a purist—is fighting for astigmatia and for a rectification of the confusion and perverted use of *nyctalopia* and *hemeralopia*—but he fails to see what is to be gained by inserting a redundant *i* in chorioid, particularly upon such slight warrant as a corruption two thousand years old in what is now a dead language.

THE JOURNAL OF THE AMERICAN MEDICAL EDITORS' ASSOCIATION.

For several years the number of medical journals has been decreasing, much to the advantage of the profession, but today we gladly welcome a new brother. Last June saw the birth of a unique medical journal, one which bids fair in all probability to survive every one now published in this country—except possibly JAMA.

Such papers as are written for the Medical Editors' Association fill a niche of their own; they will doubtless exert an influence upon the medical press and upon the profession to a much greater extent than when buried in the yearly volume of transactions, and will be more widely quoted and abstracted. The members of the Association will, we expect unanimously, welcome the change and approve of the new form and arrangement; all prosperity to *The Journal of the American Medical Editors' Association!*

A CASE OF ACUTE LABYRINTH DESTRUCTION WITH
COMPLICATING ERYSIPELAS FOLLOWING
MASTOID OPERATION. RECOVERY.

G. W. MACKENZIE, M. D.,

Philadelphia, Penn.

PATIENT—Mrs. R. W. M., aged 40 years. Was first seen by the writer March 4, 1913, in consultation with Dr. Raymond Harris, of Philadelphia, at the home of the patient.

Family history—Father and mother living and in good health. Two brothers and two sisters are living; one brother and one sister dead from diphtheria in early life.

Personal history prior to present illness—Patient had measles in childhood; another mild illness of indefinite type seventeen years ago; otherwise patient has enjoyed excellent health until present illness.

History of present illness—Patient began four weeks ago with a severe cold which the attending physician pronounced influenza. For the last two weeks her condition became aggravated and with it she developed a severe maxillary sinusitis of the left side accompanied with neuralgic pains in left side of the face and profuse unilateral nasal discharge; but at the time I was called in this condition was apparently improved. Two days ago the patient observed, for the first time, pain in and about the left ear, increasing in intensity up to the present time; worse at night. At no time was there any discharge from the ear. She complained of marked diminution of hearing and some subjective noises but, above all, she complained of dizziness. She described her dizziness as a sensation of tumbling; everything seemed to be in motion. She was unable to describe its direction. This dizziness was intermittent. The attacks would last several minutes at a time and were accompanied with severe nausea and vomiting. The patient was unable to go about during the attack of dizziness; she was compelled to seek her bed and remain quiet. She believed the attacks of vertigo were due to stomach or bilious trouble from which she was prone to suffer. Headache was rather severe and limited mostly to the left side of the head. The headache affected the front, the side and the back of the head, with greatest intensity toward

the back of the head. The pain in the head seemed to extend down into the neck on the left side. She held the head somewhat rigidly and supported it with her left hand applied to the nape of the neck, especially when attempting turning movements.

The patient's temperature was 99.6° ; the pulse was not taken, the patient was very nervous.

Otoscopic examination showed: right ear normal. Left ear, canal normal. Tympanic membrane intact; however, it appeared dull, *i. e.* the light reflex was absent and the membrane looked gray, opaque and water logged. The appearance resembled somewhat that of frosted glass.

The entire mastoid process was sensitive to pressure. The periosteum was slightly thickened and less movable over the underlying bone than on the right side.

The dimensions of the room were so small and other conditions so unfavorable that it was quite impossible to make accurate hearing tests; from what was made, however, we were able to determine a marked reduction of hearing on the left side, without complete deafness.

The tuning fork tests showed: Weber lateralized to the left; Rinne positive on the right side and negative on the left; Schwabach normal on the right side and lengthened on the left. High and low tones were heard normally on the right side but were reduced on the left.

From the side of the static labyrinth no information was added to that obtained from the history. Spontaneous nystagmus was absent. Had the examination been made during one of the attacks of vertigo the nystagmus would, no doubt, have been present.

Cold water, which was used in douching the ear, failed to produce the normal reaction, viz. rotatory nystagmus to the opposite or right side. This failure to obtain reaction with cold water was probably due more to the fact that the membrane was intact and the tympanic cavity loaded with discharge, rather than to an actual destructive process of the labyrinth itself. The proof of this is shown in the history of the case following operation when the patient manifested all the typical signs of acute labyrinth destruction.

Turning tests were not made since the patient's generally unfavorable condition would not permit.

Galvanic reactions were not obtained because as yet we have no portable apparatus for making these tests.

In view of the history and findings, the case was considered serious enough to warrant prompt action. The patient was sent to the hospital and operated early that same evening. The object was to give vent to the pus in the middle ear and mastoid sufficiently early to save the inner ear and avoid, if possible, even graver complications.

Operation.—Ether was administered by one of the house surgeons. A typical retroauricular incision, about 5 cm. long, was made through skin and periosteum to the bone. The periosteum was separated from the bone over the greater portion of the mastoid. The mastoid was chiseled open to the antrum, when there issued a quantity of pus tinged with blood. The mastoid was of the pneumatic type and was found to be necrotic in spots, particularly in the region of the antrum. The necrotic part was removed readily with a sharp curette. The necrotic area was found to involve the tegmen antri which was removed, exposing the dura of the middle skull fossa. The dura, however, was found to be normal. The sinus was exposed and found to be normal and left alone.

The necrosis involved more particularly the antrum region, which probably accounted for the early involvement of the inner ear; notwithstanding, the facial nerve was not affected. It probably would have been in a short time had not the mastoid been opened. The operation was completed after the usual manner, including the removal of the mastoid tip. Dressings of moist iodoform gauze were applied to the wound cavity and a strip of plain gauze applied to the canal. Over all a liberal supply of plain gauze was placed and held in place by a gauze bandage.

After the operation the patient reacted well and was out of ether, so to speak, before midnight. During the early morning hours the patient complained of drawing pains in the left ear and left side of the head, more particularly toward the occiput. The patient vomited large quantities of green fluid with considerable nausea. She was also quite restless.

March 5th (first day after the operation). The patient complains of the head being quite sore and painful. During the day the patient complained of intense vertigo and vomited at frequent intervals. The patient was visited by the writer in the forenoon and again in

the afternoon; on both occasions there was pronounced nystagmus to the right (well) side. The nystagmus was a combination of rotatory and horizontal and of long excursions. Temperature at 3 p. m. was 100.2° , pulse 98.

March 6th (second day after operation). Patient still complains of pains in the left side of the head. She vomits frequently, causing soreness of the abdomen. Vertigo and nystagmus the same as day before. At 3:30 p. m. temperature 100.2° , pulse 98, respirations 24. In the evening the patient complained of intense burning and itching of the skin about the left ear, which marked the beginning of what proved later to be erysipelas.

March 7th. Patient is menstruating. She complains somewhat less of pain in head; however, the burning and itching in region of left ear continues. Vertigo somewhat less than yesterday. Nystagmus unchanged. Patient sleeps for longer periods, but is not drowsy between naps. Intellect normal. Temperature fluctuates between 99 and 103 degrees. Vomiting pronounced, even with an empty stomach. Nutritive enemas attempted but not retained. Erysipelas infection begins to show in front of the dressings. The evening of the same day 5 c.c. of P. E. (erysipelas phylacogen) injected by Dr. Harris. No particular reaction was noticed nor any improvement in patient's condition.

March 8th. Patient complains of burning and itching and stiffness of left side of face and about the angle of the jaw. Vertigo present only when patient moves about in bed. Temperature fluctuates as on previous day, reaching 102.4° at 3 p. m. At 2 p. m. 10 c.c. of P. E. were administered by Dr. Harris and ichthyol ointment applied locally to the area infected with erysipelas. The dressings were removed. The wound secretion was rather profuse but otherwise looked favorable and granulating well. At this time a hearing test made with a Dr. White's noise producing apparatus indicated absolute deafness of the left ear. The patient complains of distress in left hip, which showed beginning signs of bed sore. During the day the patient had an involuntary stool, at times was slightly irrational and wanted to get out of bed.

No particular reaction was observed as result of the phylacogen administered.

March 9th. Patient's condition generally improved. Sleeps more, but is not drowsy. She takes more nourishment and retains it better than

before. Temperature fluctuates between 101° and 102.4° ; highest in late afternoon. Retention of urine requires the use of the catheter. Patient is practically free of pain. Erysipelas still spreading, perhaps somewhat less rapidly. Complains of burning sensation in left ear, but none in face. Patient is free of vertigo but nystagmus continues though slightly less pronounced. Dressings changed and wound secretion is quite profuse.

Fresh ichthyol ointment was applied by Dr. Harris. With the exception of the high temperature the patient had a better day than yesterday. At 10 a. m. Dr. Harris administered 10 c.c. of phylacogen followed by slight reaction; temperature reaching 102.4° by 6 p. m.

March 10th. During the morning hours the temperature was generally lower than it had been. Patient sleeps more. Complains of burning sensation in the left ear; also of a stuffy feeling in nose, from which she blows out considerable quantities of thick secretion. Hawks up thick ropy mucus. At times patient is whimsical and at other times depressed. Wants to go home. Involuntary stool. Refuses nourishment. Patient more or less irrational until noon. Restlessness with dizziness and tendency to vomit. Flashes of heat going through her body. Nystagmus unchanged. Complains of stiffness and soreness in back of neck. Erysipelas is apparently checked, having reached the middle of the face and slightly beyond.

In the afternoon and evening temperature generally lower, at one time (shortly after midnight) reaching normal. Wound redressed and fresh application of ichthyol was made.

March 11th. Patient enjoyed a more restful night. The temperature fluctuates between 98.4° and 99.4° . Headache has diminished, however back of head and neck feels somewhat stiff. Patient takes occasional naps from which she awakens refreshed. She is quite free of dizziness. Nystagmus is still present, but less pronounced. She continues to blow a fair amount of thick secretion from the nose and hawks up ropy mucus from the throat. Both nose and throat are sprayed with cleansing and antiseptic washes.

Wound dressings were changed; the wound shows fair amount of thick yellow and slightly ropy secretion, not particularly offensive in odor. Wound appears to be granulating normally.

March 12th. Patient feels generally better, having slept comfortably the major part of the night. Temperature hangs around the

normal mark. Highest temperature recorded at 4 p. m. was 99.2° and stayed at that mark for three hours only, when it came down to normal.

Patient feels generally much better. Nystagmus is constantly decreasing and dizziness is complained of only when she moves about in bed. Wound was redressed.

March 13th and 14th. The patient's condition is improving steadily, there being nothing to record of an unfavorable nature. Temperature fluctuates between 98.2° and 99.4°. Erysipelas has cleared up and the epidermis is peeling off.

March 15th and 16th. Improvement continues with the one exception, the temperature does not remain normal but occasionally goes to 99.4°. As a result of the unsatisfactory condition of the temperature, the patient was given 5 c.c. of P. E. at 11 a. m., following which there was no apparent reaction.

March 17th. Ten c.c. of P. E. given at 3:30 p. m. Patient is now on low diet. Wound is redressed daily and is granulating normally.

March 18th to 27th. Temperature has come to normal and remained so. Patient eats and sleeps well; suffers slight soreness in the left side of the head, otherwise she feels comfortable. Somewhat unsteady on her feet when she attempts to walk. She was discharged from the hospital on the 27th and told to report at the office for daily redressings.

An April 7th, 1913, a complete functional examination of the ear was made with the following findings:

<i>Right Ear.</i>		<i>Left Ear.</i>
8 M	Conversat. voice	3 M
6 M	Whisper voice	.20 M
6 M	Acumeter	ad conch.
	<hr/>	
	Weber	
Sl. short	Schwabach	Decidedly short
Positive	Rinné	Negative
	<hr/>	
Normal	C.	Negative
Normal	c ₄	Decidedly short

Three meter speaking tube, left ear, conversation voice 75 per cent. failures.

White's noise producing apparatus proved the left ear to be deaf.

Spontaneous nystagmus: when looking straight ahead rotatory nystagmus to the right of short excursions at intervals of 6 to 8 seconds between the excursions, more pronounced when looking to the right, least pronounced when looking to the left.

Equilibrium tests: With eyes open patient walks cautiously and is slightly unsteady. Gait backward is even slower and more unsteady. With eyes closed, gait forward and backward very unsteady and patient tends to fall. Patient was taught at this time to walk with a broad gait. After a few trials the gait was improved, the patient walking with more certainty and faster.

Turning test: After ten hours to the left with head erect horizontal nystagmus to the right, increased over the spontaneous nystagmus for twelve seconds.

After ten turns to the right with head erect, horizontal nystagmus to the left lasting six seconds.

After ten turns to the left with head inclined 90 degrees forward, rotatory nystagmus to the right lasting eight seconds.

After ten turns to the right, with head inclined 90 degrees forward, rotatory nystagmus to the left lasting four seconds.

GALVANIC REACTIONS.

L. Ear.—A. 3 ma. Nystagmus to right slightly increased (?). K. 10 ma. No reaction.

R. Ear.—A 10 ma. caused cessation of nystagmus. K. 3 ma. Nystagmus to right increased.

Examination of the ocular fundi showed them to be normal.

At the present writing, May 24th, the patient is doing well with the exception that she is completely deaf on the left side and shows an absence of equilibrium function on the same side.

The wound is about healed and the patient is able to go about without an attendant.

The case is an interesting one from many points of view and deserves a brief discussion.

The history of the case together with the patient's condition when first seen established the fact that we had a very virulent and rapidly destructive process within the middle ear cavity and mastoid. A more complete examination than that recorded was prevented because of the limited quarters, the lack of facilities and the patient's unfavorable condition; however, sufficient was learned to establish the fact that we

had, in this case, a very intense infection to deal with; one that had already begun to invade the labyrinth and possibly the cranial cavity. All of which was borne out by the findings at the operation and the subsequent course of events. Unfortunately, no bacterial examination of the pus was obtained. Although we were prompt in our efforts to forestall labyrinth destruction we were not successful. A labyrinth exenteration was considered but erysipelas intervened to stay our efforts, so that it was never done. During the time when we were still debating the subject of what best to do with our patient, Dr. Harris suggested the use of phylacogen; accordingly it was administered with favorable results.

I do not wish to discuss the value of phylacogen other than to say that in this particular case it seems to have worked satisfactorily in staying the erysipelas and improving the patient's system's condition.

The end results were recovery from the erysipelas infection and from the severe infection of the middle ear and mastoid; but with a destroyed inner ear.

1831 Chestnut Street.

Tonsillotomy vs. Tonsillectomy.—Disadvantages of tonsillotomy: (1) The initiation of an infection, whether manifesting itself as tonsillitis, lymphadenitis, or both. Such sequelæ are more likely if a very free and deep removal has been performed than if only a moderate amount of the tonsil has been removed. (2) Recurrence of the trouble for which the operation was performed, except in the case of voice troubles, when recurrence is no more probable than after tonsillectomy.

Disadvantages of tonsillectomy: (1) A risk of serious or even dangerous hæmorrhage at operation. (2) A risk of harmful deformity supervening later; the deformities most likely to cause harm are adhesion of the posterior faucial pillar to the posterior pharyngeal wall, and overgrowth of the plica triangularis. (3) A risk of voice troubles supervening later, even without any causative deformity. To any patient who requires operation for some other reason, who has never had any voice trouble, and whose livelihood or occupation depends on the use of the voice, tonsillectomy should be urged with caution.

Thus it would appear that tonsillectomy is the more dangerous operation. But with the single exception of voice troubles, it is more likely to permanently cure the complaint for which advice is sought, notably so in the case of tonsillitis or lymphadenitis; moreover, these two infections are never initiated by tonsillectomy. It is important to eradicate the lower pole.—*Therap. Gaz.*, Editorial.

RELATIVE FREQUENCY OF DEFLECTED SEPTUM.

DOUGLAS MACFARLAN, M. D.,

Philadelphia, Penna.

THE proportion of persons showing some degree of deflected septum is quite large. Of 1,000 cases examined 285 had deformity sufficient to produce symptoms and call for operation. There was no permanent obstruction present in all these cases, for such of course is seldom seen, but the cases noted showed the deviation to be a large factor in the frequent unilateral attacks of "stopping up." The subjects seem more prone to acute coryza, the side of the convexity being that most annoyingly affected and most persistent. The statement that these cases seem to catch head colds more frequently should be considered with the fact that these colds are brought to the patient's attention more acutely when he or she has a deflection which adds to the stenosis.

It is interesting to note that there is apparently no tendency of the septum to deflect to any particular side. Of the 285 cases, 142 were deflected to the right, 143 to the left. There is no apparent reason why any unequal tendency should exist but the statement is often heard that right side deflections are more often seen.

The type of deformity is usually both cartilagenous and bony, and seldom of the sharp angular variety. Most frequently is seen a septum gently curving out to a bony ridge of the vomer where the angulation is more sharp. The S shaped deviation, either compound curve or angular, seems comparatively rare. The perpendicular plate of the ethmoid shares in the deformity usually as frequently as the cartilage.

Of the 1,000 cases fifty-five had spurs and eight had synechia.

Trauma was the most frequent cause of the deformity, and most cases referred the origin of their troubles to a broken nose or a severe blow. It may be well to bear in mind however that nearly everyone has had a severe contusion of the nose at some time.

Those cases that were apparently congenital showed the high palate and contracted dental arch. Of these supposedly congenital cases there appear few in early childhood; in these it is presumed that the initial physical deformity has not as yet produced its effect on the developing septum.

BRAIN ABSCESS OF OTITIC ORIGIN.

ALTON G. WARNER, M. D., O. ET A. CHIR.,

Brooklyn, New York.

IT has been my privilege to report to this society three cases of brain abscess from middle ear infection. I shall take the liberty of briefly reviewing these cases before narrating the present or fourth case.

CASE 1.—R. H., a male of twenty-four years. There was a history of recurrent discharge from the right ear for several years. For two weeks there had been severe pain in the right side of the head with sleeplessness, slow pulse, and finally stupor. There had been no vomiting. There was no paralysis. The eye grounds were negative. On admission to the hospital the temperature was 99° , the pulse 55, stupor profound. A simple mastoid operation was done and some granulation tissue was removed. A large abscess was evacuated from the deeper portions of the temporosphenoidal lobe by the removal of bone above the zygoma. The abscess was evacuated through healthy dura. There was immediate relief of all the symptoms. The patient lived forty-five days and died of purulent meningitis as shown by autopsy.

CASE 2.—A. B. S., a male twenty-eight years of age. History of severe earache on the right side two weeks before. Incision of the drum head and the usual treatment had given no relief. Intense headache, sleeplessness and slow pulse followed. By the time consent for operation was secured, meningitis had developed. The pulse was 120 and temperature 104° . The mastoid operation was done, sinus and dura exposed. The mastoid cells were normal. The sinus was normal. The dura was highly inflamed. A large temporosphenoidal abscess was evacuated. The patient never recovered consciousness. Death occurred five days after operation from purulent meningitis, confirmed by autopsy.

CASE 3.—Mrs. C., thirty-one years of age. History of a discharge from the right ear for years. Pain in the right side of the head for several years. At the time of entering the hospital there was a foul discharge from the right ear and some mastoid tenderness. The temperature was 100.5° , pulse 104. The eye grounds were negative.

There was no paralysis, no vomiting. The patient was apathetic but complained of pain. The usual mastoid operation was done, the cells were found filled with pus and granulations. The sinus was so broken down that in spite of care it was ruptured; very free hæmorrhage followed. The patient was taking the anesthetic badly and the operation was suspended. The following day the pulse and temperature were normal. The patient was entirely free from pain and mentally clear. Forty-eight hours after the operation she suddenly went into collapse and died. Autopsy showed temporosphenoidal abscess which had ruptured into the lateral ventricle.

CASE 4.—Mr. H., fifty years old, gives the following history:—He had been chilled from damp clothing two weeks before. The following day he had some headache. On the third day the pain had become severe; it was located in the right temporal region. He consulted a physician who found a temperature of 101° , pulse 70. He gave a history of recurrent discharge from the ear since childhood. No discharge was noticed at the time. For several days the pain in the head increased in severity. He could not sleep. The pulse became slower. Most of the time 60 to 68. Present condition when seen by the writer Oct. 7, 1912: Temperature 98° , pulse 64. Does not complain of much pain. Is drowsy. Answers questions correctly but slowly. Speaks only when questioned. Examination of right ear showed granulations in the middle ear with a little foul discharge. Examination of the fundus oculi, negative. There had been no vomiting. Diagnosis, brain abscess from middle ear infection. Operation advised.

The patient did not reach the hospital till Oct. 9th. He had become more drowsy. The left arm and leg were paralyzed. Temperature was 99° , pulse 60. The mastoid cells were cleared out and the posterior wall of the tympanum taken down. There was an opening in the roof of the antrum leading into the cerebral cavity from which foul pus ejuded. The dura was exposed and incised, a probe was passed into the brain tissue without resistance and pus flowed freely; when this ceased, by drawing apart the brain tissue, more pus could be obtained. This process was repeated several times, more than an ounce of pus escaping. The brain cavity was then washed out with a carbolized solution. No drainage was put into the brain cavity. The mastoid cavity and middle ear were packed lightly with iodoform gauze.

At the conclusion of the operation the pulse was 80. The following day the dressing was removed and, upon separating the brain tissue, half an ounce of pus flowed out. On the second day there was not more than half a dram and on the third only a little bloody serum. The pulse and temperature were normal. The patient was mentally clear. The paralysis had disappeared. He made an uneventful recovery.

At the date of writing, five months from the time of operation, he is well and working at his occupation of printer. He complains only that he gets tired more easily than he used to.

It will be noted that all these cases were of temporosphenoidal abscess and that all were on the right side. In three cases the middle ear suppuration was chronic, in one very acute. Headache was a constant symptom. Vomiting did not occur. Three were comatose, one was apathetic and depressed. Paralysis existed in one case. The temperature was only slightly elevated in three cases; in one it was high, but this was due to violent meningitis. The pulse rate was slow in all. Lumbar puncture was not made in any case, but in none would it have been an aid to diagnosis. Two cases died of purulent meningitis, one of rupture into the lateral ventricle before evacuation, one recovered.

In regard to operation it would seem better to open the abscess along the path of infection. The arachnoid space is obliterated for some distance about the site of infection, consequently the danger of infection to the arachnoid is lessened by operating in this manner.

It would also seem wise to avoid too much meddling with the abscess. Attempts to explore every portion of the abscess may break down the limiting wall thrown out by nature. Separation of the walls with thin flat retractors appeals to our judgment. Irrigation is usually unsatisfactory. The bone cigarette drain probably affords the best method of drainage though this was not used in the cases cited. Daily spreading apart the walls proved effective in the case that recovered. Packing with gauze is a mistake, except possibly where it is necessary to stimulate the lining membrane. Rubber tubes become clogged and are undesirable.

I realize that these cases are too few in number to afford ground for new opinions, but I submit them in the hope that interest may be aroused and discussion promoted.

19 Schermerhorn Street.

CAPILLARY ANGIOMA OF THE RETINA.

(Concluded.)

H. FRENKEL.

Toulouse.

(Translated from *Annals d'Oculistique*, March, 1912, by JOHN L. MOFFAT, M. D.)

6. *Case by Hippel* (11).—Man of 28 years.

O. s.—In 1896 v. = 5/7. Inferior nasal artery and vein dilated, sinuous, running to a round red-yellow spot behind which they disappear. Actual vision, fingers at 3 meters. Scotomata.

O. d.—Normal.

In 1902 detachment of the retina in the track of the same vessels, small pale spots along these vessels, retinal hæmorrhages.

Remarks.—History, probably tuberculosis. Here also the disease has remained monolateral, at least during the five years of observation.

7. *Case by Wagenmann* (20).—Boy aged 17, under observation for two years. Ophthalmoscopically, vessels dilated and sinuous, prominent yellowish foci in the retina and diffuse yellowish white disturbance as well as "trouble" the length of the vessels; there are also prominent red hæmorrhagic spots. In places retinal detachment.

Dec., 1902. Aggravation, glaucomatous phenomena, scleral staphyloma, relief by myotics.

8. *Herzog's Case* (10).—Aged woman. The report of the Heidelberg Congress gives no details.

9. *Sattler's Case* (17).—Woman aged 37. As in the preceding case, no details.

10. *Jacoby's Case* (13).—Woman aged 30. Double amaurosis.

O. d.—Ophthalmoscopically, vascular dilatation superiorly, round prominent body. Enlargements on the artery. Small disks on the lateral arterial branches.

O. s.—Three foci on the branches of the superior artery of the retina; these are yellowish in the middle and more reddened at the periphery. In some branches a pulse upon pressure, but no pulsation in the foci. A recent case, no detachment yet of the retina.

11. *Case by Goldzieher (6)—Czermak (2).*—In 1899 a girl aged 19 years who had been seen by Herrnheiser in 1896, by Goldzieher in 1898, by Czermak in 1899, and who died Aug. 27, 1900.

In 1896 clouds before the right eye lasting a minute, recurring at first about thrice a week, at the end of a month present almost every day. Visual acuity fell, and by the end of July the right eye could only count fingers. Then the patient struck herself a blow against the edge of the bed causing palpebral edema; when she could open the lids vision was lost.

In September, 1898, diminution of left vision. At the end of January, 1899, the clouds were worse, and in July amaurosis was complete. In November of that year she was delivered of a child; became sick in 1900 and after four months succumbed with cerebral symptoms.

Autopsy.—A cyst in the left cerebellum, chronic internal hydrocephalus, general anemia and adenomatous cyst of each ovary.

Ophthalmoscopic examination in 1899 showed: O. s. detachment of the retina, red vesicular balls, round or fusiform with entering and departing dilated vessels which can not easily be recognized as arteries or veins.

Remarks.—v. Hippel's ophthalmoscopic figures in his Memoir of 1911 are very characteristic and very instructive. The histologic examination by Czermak and Ulbrich will be reported infra. This examination covers both eyes.

12. *Case by Wood (21).*—This case has been examined histologically by Treacher-Collins. The eye was enucleated in 1892 for secondary glaucoma.

13. *Case by Wood.*—Sister of the foregoing, aged 26. Sick since 10 or 11 years old, blind at 12. Double enucleation for painful anterior staphyloma. Ophthalmoscopic examination impossible.

14. *Gurwitch's Case (8).*—Boy, 19 years old.

O. s.—Vision, fingers at $4\frac{1}{2}$ meters. Ophthalmoscopically, a vessel, running downward and inward, very dilated, very sinuous, passes around the macular region where there is an irregular rather large grayish focus, then returns toward the papilla without any anastomoses en route.

Remarks.—This description is insufficient in the sense that it has not mentioned rounded bodies with afferent and efferent vessels.

15. *Case by Guzmán (9).*—Scholar aged 16.

O. d.—Sees flakes before the eyes. Vision, counts fingers at

3 meters. Visual field contracted, scotomata above and below. Ophthalmoscopically, on the temporal side of the central fovea of the optic disk there is a yellowish white spot, 2 by $1\frac{1}{2}$ papillary diameters, making a hemispherical projection whose measure by the hypermetropic refraction of its summit is $1\frac{1}{2}$ diopters, while the optic disk has 3 diopters of myopia. Its surface is delicately pigmented, its outlines very marked.

The retina has a large zone of milky "trouble" and a yellowish white stippling as in circinate retinitis. Some of the vessels are enlarged, some contracted; they have varicosities and sinuosities in their peripheral branches; in any case, the number of vessels is increased and several show processes shaped like ruffs ("en forme de fraises") or even the vessels are dilated like aneurisms. There are also abnormal anastomoses and small hæmorrhages. The aneurisms affect equally arteries and veins. Two months after this examination there was a sharp hæmorrhage in the vitreous which was slow in absorption.

16. *Case by Guzmán (9).*—Locksmith, aged 29.

O. s.—For five months clouds and failing sight. Vision, fingers at 3 meters, visual field contracted on the temporal side, central scotoma.

Ophthalmoscopically, optic disk and its vicinity on the nasal side veiled, seat of the affection is in the superior internal sector of the retina. The vessels are dilated, sinuous, their exit from the disk veiled by the whitish disturbance of the retina. At the periphery three of these corkscrew vessels inosculate in a round red body which shows a parallactic deviation and a diameter of two papillary diameters. It is impossible to distinguish between artery and vein. The macular region presents an appearance recalling retinitis albuminurica. Later the vitreous was affected.

Remarks.—Comparing Guzmán's two cases we find they have in common: Youth, no previous sickness, origin without appreciable cause, without external lesion, and evolution chronic. In the fundus we have the same vascular modifications, the same thickening of the retina, the same more or less pronounced projections. In both cases there is the appearance of retinitis circinata.

The two cases differ: in the first, the vessels are not much dilated but have numerous aneurismal swellings; in the second, there are enormous vessels and, at the periphery, a hemispherical red body, where vessels inosculate (Guzmán).

17. *Terson's Case* (18).—Girl aged 26. O. d.—V. = 0. Detached retina, iridochoroiditis which commenced ten years ago.

O. s.—V. = $\frac{1}{2}$. Ophthalmoscopically, extraordinary aneurismal dilatation of the inferior artery of the retina and of the corresponding vein, this artery with beaded swellings and constrictions, the vein dilated, bent with central light reflex. Upon looking downward the vessel is lost in a circular lesion, whose diameter is double that of the papilla, with trains of pigment alongside of white parts whose borders are clean and prominent. From a point opposite to the lesion the vein emerged with the same enormous dilatation, and reascended ("remontait") to inosculate with an aneurismal arterial branch.

After five months of antitubercular treatment, because of suspicious history, vision improved to $\frac{2}{3}$, but the ocular lesions persist.*

18. *Knape's Case* (14).—Boy of 10 years; glioma of the retina. May, 1905. Ophthalmoscopically, certain vessels very much dilated, sinuous, double contoured, run toward center with an appearance of retinitis proliferans; it is impossible to say whether they are arteries or veins. Here and there red formations of blood, clear cut and slightly prominent, of varying size. Taking the histological examination as a groundwork the author admits that these round foci in the retina were nothing but newly formed vascular glomeruli.

Remarks.—Some contradictions in Knape's observations, brought up by v. Hippel, are explained by Greeff (7) as due to careless editing.

Before comparing this case with the others and with ours, let us recount again what is known up to now by microscopical examination of those eyes among them where this has been made.

PATHOLOGICAL ANATOMY.

Leaving aside Panas' histological description, which could not be

*While correcting proof the following was received from Terson: "A letter from the attending physician of September 21, 1911, says: 'I always thought this a lesion of tuberculous nature. Notice that she lost an older brother and sister, each with tuberculosis, that the mother died of tuberculosis of the bronchial glands which caused asphyxia by compression of the bronchii, that she herself had several recurrences of manifestations at least paratuberculosis—keratitis, nasal lesions, adenitis, bronchitis. etc. Evidently the general treatment should be directed with this idea. I add that a child of the patient's only remaining sister was brought to me about a year ago for a phlyctenular keratitis, and this child has *spina ventosa* of several fingers, that is to say an osteitis clearly tubercular."

secured and which might be discussed from too many points of view, what we actually know about angioma of the retina is based upon histological study of six eyes made by Treacher-Collins (3 eyes), Czermak-Ulbrich (2 eyes), v. Hippel (1 eye). We will recapitulate them here briefly, following v. Hippel's memoir.

EXAMINATIONS BY TREACHER-COLLINS.

1st Case.—Observed by Wood. Enucleated in 1892 for secondary glaucoma, choroid thin, retina very thick, remnants of rods and cones, vessels dilated with thickened walls making distinction between artery and vein difficult. At the points where retina and choroid are merged there is a vascular plexus like a capillary nævus.

2d Case.—Sister, aged 26, of the preceding.

O. d.—Osseous shell within the choroid, cystic cavity limited in part by the bone and in part by a soft mass. In the external half a prominent yellowish mass composed of capillary vessels, with monocellular walls amongst which are vessels with much thickened walls. Between ("entre") the vessels we find cells with large nuclei. The yellow mass is limited within by fusiform cells, without by a fibrillar mass or by bone. The optic nerve is much degenerated.

O. s.—The deep layers of the cornea show a neoplasm composed of a plexus of capillaries analogous to that of the retina in the right eye. This neoplasm also extends to the surface and has destroyed the membrane of Descemet, the iris, the lens and the zonule. The choroid is thin and ossified over almost all its surface. Where elastic fibers persist they are found at the internal surface of the bone. Within the bone there is a neoplasm composed of vessels as in the anterior segment of the globe. The pigmentary epithelium of the retina is destroyed, in places hyperplastic. No normal retina remains, the optic nerve is atrophied. The neoplasm should have its point of departure in the retina and may be considered a capillary nævus.

EXAMINATIONS BY CZERMAK-ULBRICH (2).

Patient died in 1900 of a cerebellar cyst and of hydrocephalus.

O. d.—Retina in gliomatous degeneration with numerous cystic cavities; without, it is invested by a fibrous mass which contains vessels in its internal layers, in its external layers clefts and cavities. This fibrous mass covers the atrophic choroid for the entire lower half of the globe and extends from the ora serrata to the optic disk. At this

last place there are deposits of true bone in the form of plaques and shells. The adherent (*délimité*) choroid is also atrophied and infiltrated by round cells. The layers of rods and cones and of nerve fibers are everywhere missing.

The spherical or ovoid nodules observed with the ophthalmoscope receive large arteries and give issue to large veins which run in the internal layers of the retina. The vessels divide within the nodules and resolve into a lot of capillaries. Two forms may be distinguished: one where the nodules are well defined, containing only vascular loops and no retinal tissue; these are *dense nodules*. The others are poorly defined from their surroundings and have much gliomatous tissue between the capillary loops; these are *lax nodules*. In the last are secondary nodules in the midst of primitive glomeruli forming a lobulated structure. Alongside of the gliomatous tissue which should be considered a reaction from the vascular proliferation we find also remnants of the granular layer. The lax nodules represent an early, and the dense nodules an advanced, stage of the process.

The lens is cataractous. The subretinal space contains remains of hæmorrhages.

O. s.—The retina is less altered, the granular layers are preserved: In places the external layers show gliomatous degeneration with pigmentation and formation of clefts. Where there are large nodules the retina is five times its original thickness. The small nodules are situated in the layer of nerve cells, of ganglionic cells and in the internal plexiform layer. The larger ones attack and perforate the internal limiting membrane. Then vascular proliferation takes place in the adjoining vitreous.

The walls of the large vessels show proliferation of the nuclei of their internal and external coats.

EXAMINATION BY V. HIPPEL (12).

1st Case.—Enucleated for secondary glaucoma 16 years after the commencement of the disease.

Cavernous angioma of the choroid with ossification of that tunic. Superior temporal artery and vein after a sinuous course debouche with large openings into one of the sanguineous spaces of the choroid angioma. Another large artery, as well as an enormous vein, send a small lateral branch which ends in an angiomatous nodule. One can see also a direct communication between an artery and a vein, although

the direct opening of the small vessel can be seen only on the side of the vein.

The retinal tumor is composed almost exclusively of vascular glomeruli embedded in hyperplastic gliomatous tissue. It is not a question of isolated angiomatous nodules resembling glomeruli elsewhere; they lie specially in the internal parts of the membrane. From here they extend partly to the adjacent thickened parts of the vitreous and partly in to the whole thickness of the retina.

Among the accessory phenomena we notice hæmorrhages in the suprachoroidal space, in the retina and behind the lens, infiltrations of leucocytes, destruction of the retinal pigment epithelium, while the optic nerve is relatively immune. There is a capsular and cortical cataract.

Comparing Czermak's case with his own, v. Hippel verifies ("constate") in both the existence of an angioma of the retina with gliomatous proliferation and formation of a thick fibrous shell adorning the choroid and partially ossified. Only in Czermak's case the choroid is thin, in part atrophied; in Hippel's case the choroid participates in the angiomatous process. Further, this case is interesting by the passage of dilated vessels from the retina into the angioma of the choroid.

ETIOLOGICAL CONDITION.

Leaving aside three cases whose accounts are too summary, we find in fifteen cases ten men and five women. The age at time of observation or publication varied from 10 to 33 years. In these 15 cases the affection has been bilateral 7 times, admitting (what is not demonstrated) that the lost eyes not examined suffered from this same disease.

On the other hand, the eight monolateral cases were not under observation long enough to exclude the possibility of the other eye being attacked. Two cases did not indicate which eye was affected; in 13 cases with 20 bad eyes, the right eye was attacked 11 and the left eye 9 times.

As to the origin and duration of the disease we have had approximate reports of 8 cases concerning 10 eyes. The actual commencement will always remain unknown; as to the apparent beginning, Darier and Wood have found it at 10 years of age, v. Hippel and Wagenmann at 15, Goldzieher and Terson 16, Czermak 18, Hippel 23, Guzman 29, and Darier at 31. The duration of observation was

variable: 5 or 6 months, 2 and 5 years. One eye had been lost ten years, one eye was enucleated 13 and another 16 years after the onset (v. Hippel).

CLINICAL SIGNS.

Among the phenomena of onset rather than prodromal symptoms the authors have noted *muscæ volitantes*, disturbed vision, a gray cloud, mist, flakes, a greenish spot, once even a rainbow halo around luminous objects (Darier). To these subjective phenomena correspond in some cases (Hippel, Guzmán) scotomata, which we also have sought for in one case and found at the edge of the visual field. Soon the visual acuity, which at first might remain good for a long while, commences to fail. The location of the first angiomatous glomeruli being often at the periphery of the retina, it is conceivable that the sight might remain stationary for a long while.

The contraction of the visual field has often been noted elsewhere. Sometimes it fails by sectors, sometimes more irregular; it occurs for white and for colors, while central color vision is well preserved.

But what dominates the history of this disease are the ophthalmic signs, which are so characteristic. Without repeating a description which may vary in details, we will remark that the ophthalmoscopic appearance is the more characteristic the nearer it is to the onset. At this time two orders of phenomena predominate in the picture: on the one hand, vascular modifications on one arterial branch in the retina and one vein, or on several arterial and venous branches—but not on all, modifications which consist of increase in size and length (sinuities) and a change in the walls which effaces the ophthalmoscopic difference between arteries and veins; on the other hand, the appearance of these particular bodies—sometimes round, sometimes oval or fusiform—their size—varying from a scarcely visible point to two or three papillary diameters, their color—reddish or yellowish or pale, or intermediate between these, but having this characteristic—that they are placed between arterial and venous branches and this from their first appearance. These bodies may project above the retina, vary in size, color and thickness, but their relation to the vessels, with dilated sinuous vessels, is most typical.

In a more advanced stage this picture loses purity. Then may be seen whitish streaks on a diffuse whitish disturbance which might pass clinically for retinal detachment and which sometimes could be

only the expression of a gliomatous reaction. In other places there are recent or old hæmorrhages or atrophic remains and posthæmorrhagic pigmentations in the retina. The location of these secondary alterations of the retina is in the vicinity of vessels or in the macular region.

Vitreous hæmorrhages as well as the retinal disturbances are not exceptional.

These lesions invade new regions of the retina with a marked tendency to approach the equator and the anterior segment of the globe. The whole fundus finally assumes the ordinary appearance of retinal detachment, save that the vessels may be larger and more numerous.

It is probable that in the future we will have ("apportera") a description of the final stage as that we already know for its maturity ("la période d' état").

The **termination** by secondary glaucoma or on the contrary with hypotonia, but always with blindness in the eyes long enough observed; in the others observation has not been sufficiently prolonged to permit hope for the arrest of the process.

The **course** of this affection is in fact slow and years pass before its evolution is completed. True, the sight is lost before the disease runs through all the stages that may be found in enucleated eyes. This explains how authors who have had the good fortune to cut up such eyes have found ossification of the choroid among the fairly constant complications.

Prognosis then is bad as to vision, and the tendency to become bilateral makes this the more sombre. It is complete blindness which awaits these unhappy ones, the younger the patient the more pitiful.

It would seem that this affection has a tendency to run in families. Treacher-Collins enucleated the eyes of a brother and sister. The sister of my patient became blind young—it is true of an affection that I could not examine—but if in my patient's sister the case was one of angioma that would make two families (four cases) in twenty known cases, really a high proportion.

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20. WAGENMANN.—Discussion in *Ber. der Ophthalm. Ges. zu Heidelberg*, 1903.

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Etiology and Treatment of Miner's Nystagmus, With a Review of 100 Cases.—Relative frequency and importance of the factors contributing to miner's nystagmus:

(1) Inadequate light: Ninety-nine per cent. of the cases had been using the Lock lamp for a number of years. Only one case was found when the naked light was allowed, and here other causes were present. The Lock lamp must be nine feet from the farthest point of the mandrill, so the workman is staring into comparative darkness. In certain parts of Scotland, where the naked light is used, miner's nystagmus is practically unknown.

(2) Errors of refraction: Ninety per cent. had errors of refraction, while in three cases the irritation was so great that no examination could be made. Of the 90 per cent., 48 per cent. had astigmia (myopic, hypermetropic or mixed); 27 per cent. had simple hypermetropia, and 15 per cent. simple myopia.

(3) Neurotic temperament: The inability on the part of a very large number of men with nystagmus to concentrate their physical or mental powers in any particular line of action guides us to the conclusion that such inability is probably much more the cause than the effect of the nystagmus.

Prevention resolves itself into medical examination of all men engaged to work under ground, and periodic examination of all underground workers, for the presence of refractive errors, any sign of incipient nystagmus and for physical or nervous debility. To this must be added the importance of adequate light. The curative treatment may be summed up in a single sentence: Rest, strychnia and the correction of refractive error.—F. N. Browne and J. Ross Mackenzie. —*British Med. Jour.*

HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

DEPARTMENT EDITOR, PHILIP RICE, M. D.,

San Francisco, Cal.

Lemna minor (6x n. & m.) reduces nasal obstruction when it is an edematous condition, worse during rainy or damp weather; when too strong in dose it has a tendency to produce troublesome dryness in the nasopharynx.

For coughs due to **lingual tonsil irritation** study mag. phos., bell., cupr. met., 3x each.

In **atrophic rhinitis** no remedies have done as good work for me as **sticta pulm.** 3x dilution and **calc. fluor.** 6x trituration; the calc. works better if crusts are prominent.

Iodine is the best remedy for acute nasal engorgement associated with high blood pressure.

For **acute coryza** study **aralia racemosa**, **apoc. can.** and **cepa** and **merc. iod. cum kali iod.**—the last named is almost specific for ordinary head colds.

Calc. fluor. has many times cured subcutaneous palpebral cysts with a red spot of congestion in the corresponding conjunctiva.

Nitric acid 3x should be considered for polyps, nasal or elsewhere.

T. L. SHEARER, *J. A. I. H.*, Jan.

*Paris Quadrifolia in Eye Conditions.

GEORGE S. OGDEN, M. D.

To show the value at times of one symptom prescribing I will give a personal verification of the symptom of this remedy: "Pulling like a string from the eyes to the occiput." During a nervous breakdown a year and a half ago the most persistent symptoms were pulsating from head to foot, persistent nausea and vomiting as general symptoms, and special eye symptoms of inability to focus the left eye on print or nearby objects without pain more or less intense, and the sensation as though the occiput was trying to pull the eye back into a deep seated telescope position. This continued for about six weeks when Dr. Blackman brought me some tablets to take every two hours. Some time afterwards Dr. Warner telephoned asking how the eye was. When I told him the sensation was relieved in forty-eight hours he replied: "So the Paris quadrifolia worked." That was my introduction to a very good friend.

Dr. Warner: I do not think I have prescribed Paris in more than six or seven cases, but whenever that symptom occurs, a feeling of the eye pulled toward the back of the head, it has never failed to stop it.

***Natrium Muriaticum During Exophthalmic Goiter.**

GEORGE S. OGDEN, M. D.

Female, aged about 37. The case presented the usual eye, heart and thyroid conditions but the most persistent and annoying symptoms were dryness of mucous membranes with thirst; lack of control of urine and absolute loss of sexual feeling. *Natrium mur.* 6x was prescribed almost continuously for a year with the result that the eyes went back to normal, the heart beat slowed down, the thyroid enlargement and nervousness became lessened, urinary control was re-established, and the sexual feeling returned, while the patient gained in weight from 134 to 167 pounds.

Notes on Eye Remedies.

G. DEWAYNE HALLETT, M. D.

Arsenicum: Keratitis phlyctenularis. Burning pains, thin acrid discharges, marked photophobia, excoriation of skin. Aggravation at night, in bright and artificial light. Relief from warm applications or in open air. For ill nourished and scrofulous children. Superficial ulceration of cornea.

Calcarea carbonica: For fat scrofulous children, often showing also indurated cervical glands, with sweating about the head at night. Aggravation in damp weather.

Calcarea hypophosphorosa: For extensive sloughing ulcer of cornea with minus tension. Debilitated patients.

Graphites: Chronic and recurring phlyctenular keratitis, scrofulous subjects, with cracks behind ears and at external canthus. Acrid nasal discharge with cracks. For superficial keratitis in conjunction with blepharitis it may be useful, the skin conditions being the guide.

Hepar: Ulcers of cornea, deep, sloughing and with hypopion, marked photophobia, relieved by heat and aggravation from cold.

Pulsatilla: Rather thick yellow bland discharges, the patient makes less complaint than would be expected from the appearance. Relief in open air.

Rhus toxicodendron: Superficial keratitis with blepharospasm, excessive photophobia and excessive lacrimation. Aggravation at night and in wet weather.

Sulphur: Sharp pains and aggravation from use of water.

"I really believe I have seen results from these remedies in various forms of keratitis."

Coagulation Time of the Blood.—Use preferably blood from a vein in the arm. Delayed coagulation is found in hæmophilia (the longest); purpura hæmorrhagica; pernicious and splenic anæmia; acute lymphatic and myelogenous leucæmia.—*Am. J. of Med. Sci., April.*

*Presented to the Kings Co. (N. Y.) Homœopathic Medical Society.

CURRENT LITERATURE.

DEPARTMENT EDITORS.

WM. McLEAN, M. D.,
New York.

FRANK O. NAGLE, M. D.,
Philadelphia, Pa.

HAHNEMANNIAN MONTHLY, May.

3. The complications of middle ear suppurations. George W. Mackenzie.

HAHNEMANNIAN MONTHLY, June.

*7. Some unusual cataract extractions. Wm. W. Speakman.

*7. Four interesting cases showing how unusual conditions were met, with discussion. Vision of 20/30 in an eye which all consultants said should be enucleated encourages one to operate apparently hopeless cases. Abstracting can not do this paper justice.

MEDICAL RECORD. Feb. 22, 1913.

Killian's suspension laryngoscopy, by Wolff Freudenthal.

The new method of Killian, *i. e.* suspension laryngoscopy, is both easy to learn and of great practical value.

Killian hit upon this invention through a mere coincidence. In order to afford a draftsman a good view of the interior of the larynx he had a cadaver hung up by the lower jaw.

Afterwards the idea struck him that this procedure might be possible on the living subject.

Fortunately he found a good subject, and after much arduous work brought the method to its present perfection.

This article is of great interest, but so technical and for complete understanding the illustrations are so important, that those interested are referred to Dr. Freudenthal's original article.

MEDICAL RECORD, May 10.

6. Cystic polypus in the nasopharynx of a child. Edwin A. Griffin.

A lad, seven years of age, was taken to the clinic for removal of tonsils and adenoids.

History of operation for tonsils and adenoids one year previous, but no benefit resulted.

Under anesthesia the stumps of the tonsils, left after previous operation, were removed.

Digital examination, before introduction of the adenoid curette, revealed a large, fluctuating mass in the nasopharynx.

Quick digital manipulation delivered en masse a large cystic polypus with a long fibrous pedicle.

The growth was as large as a good sized hickory nut.

Upon the second visit of the patient thorough anterior and posterior rhinoscopic examination showed the nasal cavities free from any more polypi.

The boy now talks and breathes normally.

It is extremely rare to find such a large polypus in such a young patient, also rare not to find some associated polypi in the nasal cavities.

The growth was without doubt present at the time of the previous operation.

THE AMERICAN JOURNAL OF OPHTHALMOLOGY. Mar.

*1. On tuberculosis of the eyelid. Harry Friedenwald.

2. A convenient form of the Haitz stereoscopic chart for the investigation of scotoma. J. W. Charles.

3. Hyalitis caused by pus absorption and intestinal autointoxication. J. W. Charles.

*1. Dr. Friedenwald in his paper gives the classification of skin tuberculosis as laid down by Mracek as applicable to the eyelids. Infection may be metastatic, but is commonly direct, and may attack those otherwise free from tuberculosis, or may be self-infected. The margin of the lid is the part most liable to the affection, especially the median portion of the lower lid. The destructive process along the margin of the lid may become very extensive, and the disease may spread to the conjunctiva but it rarely spreads far over the surface of the lid. The corresponding part of the other lid may become infected. The histories of two cases are given. The x-ray in a few treatments was efficacious in clearing up the condition.

THE AMERICAN JOURNAL OF OPHTHALMOLOGY. April.

*1. Remarks on holes in the macula lutea and fovea centralis, with the report of a new case. A. Alt.

2. The report of a case of sympathetic ophthalmia developing seven days after operation. Treated by neosalvarsan. Recovery. F. P. Calhoun.

*1. Dr. Alt reviews the subject of macular holes as first described by Dr. H. Knapp in 1869, and since by numerous others. The history of an eye injury is given and the resulting enucleation from the accidental penetration of some foreign substance is a result of the explosion of a "cap (dynamite)." The hardened eyeball presented at its macular region a swollen retina which protruded into the vitreous chamber, and gave the appearance of a hole at the macula.

THE AMERICAN JOURNAL OF OPHTHALMOLOGY. May.

1. A microscopical study of the conjunctival vessels. W. H. Luedde.
2. An instrument for holding a pair of lenses in front of a patient. J. N. Rhoads.
3. Mandible capsule forceps. A. E. Ewing.

THE OPHTHALMIC RECORD. March.

*1. Infectious suppurative keratitis. E. A. La Mothe.

*2. Dystrophia epithelialis corneæ. R. G. Reese.

3. A practical electric perimeter. N. M. Black.

4. A case of cerebello positive tumor. C. A. Veasey.

*1. Dr. La Mothe gives a splendid thesis with an extensive bibliography on the subject. The character of the paper does not lend itself to abstraction.

*2. Dystrophia epithelialis corneæ is a condition which in many instances has not been correctly classified. Prof. Fuchs in 1910 first described and named the condition. The writer describes a case he observed as of negative antecedent history, except for progressive impairment of vision for the past four years. The tension was not increased. Tactile sense was preserved to a limited degree. Both anterior chambers normal. The irides reacted sluggishly. The lenses were sclerosed and the fundi were indistinctly visible by the indirect method and were not abnormal. In both corneæ were diffuse, irregular, grayish opacities with serrated borders and confined mostly to the lower inner quadrants, but not extending to the limbus, and more dense in front of the pupil. Minute vesicles of uniform size occupying the epithelial layer appeared as little black spots against the pupil. The epithelium had a wrinkled œdematous appearance over the opacity without denudation. Various forms of treatment have proven of little benefit. The only etiological factor known so far is advanced age.

*4. The case of a woman 49 years old with no previous history of tumor, presented the following symptoms: Choked discs, intense occipital headaches, nausea, vomiting, vertigo, ataxia, lack of function of the right auditory nerve, and involvement of the facial, also the right 5th and 6th nerves. A diagnosis was made of tumor located in the cerebello-pontine region pressing on the 6th, 7th and 8th nerves of the right side. Operation was refused and the patient died three years later. Autopsy revealed an endothelioma somewhat larger than a walnut situated just as diagnosed three years before.

THE OPHTHALMIC RECORD. April.

*1. The needs of the eye, ear, nose and throat surgeon in general hospitals. Frank Allport.

2. A method of dealing with the capsule after cataract operations. D. F. Reeder.

*1. The oculist and aurist in a general hospital encounters many difficulties in endeavoring to do good work. The patients are scattered through several wards. The short term of service of internes and nurses does not permit the specialist to depend upon their intelligent assistance. The operating room nurse is seldom a help at the time of operation or is superintending the proper care of the special instruments. The suggestion is made that all eye, ear, nose and throat cases be placed in one ward in charge of which there should be a graduate nurse. The nurses under her should spend not less than three months on this service. A service of one year for the interne could be easily supplied by the young men desirous of special training who cannot obtain positions in the few special hospitals.

*2. Dr. Reeder advocates removal of the lens capsule in after cataract cases by making small incision at the margin of the cornea through which is passed a small sharp hook which grasps the capsule and extracts it by withdrawing the hook. He has performed the operation many times and has had uniformly good results, after both traumatic and senile cataract.

OPHTHALMIC RECORD. May.

1. An analytical consideration of the symptoms of eye strain with special reference to those symptoms cited to the general practitioner. J. R. Newcomb.

2. The intracapsular operation for cataract after the method of Prof. Stancleanu, of Bucharest. W. L. Simpson.
3. Eye unconsciously injured. S. Mitchell.

OPHTHALMIC RECORD. June.

1. Concerning dermoids and dermolipomas of the conjunctiva. W. B. Weidler.
2. A case of pulsating exophthalmos. G. H. Mathewson.
3. A case of nonmagnetic steel in the vitreous. Frank Allport and A. Rochester.
4. Some simple attachments for electric hand lamps. F. H. Verhoeff.
5. A case of gumma of the iris after the use of salvarsan. A. Brav.
6. Proper and improper methods of publicity from the specialist's standpoint. H. V. Würdemann.
7. Enucleation of the ciliary ganglion under anæsthesia. J. S. Wyler.

KLINISCHE MONATSBLÄTTER FÜR AUGENHEILKUNDE.

April.

Die Behandlung des Keratoconus. The former infrequently observed condition of keratoconus has been recently brought to the foreground of interest. Elschmig's arbeit in 1894 may be responsible for the revival of interest. Up to recent years (1910-01912(text books still contained antiquated facts. The modern trend of research in the chapter keratoconus is being made along the paths leading to its etiology. Therapeutically the operation of cauterization has been adopted by most operators.

It is worthy of a passing comment that, etiologically, the older observers of keratoconus drew a relationship between it and general nutritional disturbance.

Arlt makes note of finding keratoconus in generally weak constituted persons. Rampoldi speaks of keratoconus appearing in cachectic individuals. Mackenzie found it in underdeveloped children.

Salzer found it more frequent in patients suffering with albuminuria, anæmia and degenerative forms of nervous conditions. Salzer also noticed dryness of the skin, falling out of the hair, trophic disturbances of the nails, also scleroderma. These latter conditions asso-

ciated with keratoconus seem to have received a positive confirmation in the recent examinations by Siegrist and Kattman who, in their blood examinations of patients with keratoconus, found an increased lymphocytosis and a diminished coagulability of the blood; dryness of the skin and general nervousness were strikingly present in these cases. Hence the modern relationship of keratoconus and hypothyroidism. The author then summarizes and analyzes the pathological findings of keratoconus reported by Uhthoff, Arenfeld, Salzman, Tweedy and Pagenstecker.

Therapeutically, this paper is of great value. Improvement with glasses is exceptional to be of practical value—even Lohnstein's hydrodiaskop and artificial prothesis.

Treatment with miotics or mydriatics and bandage are a thing of the past.

The author considers as purposeless all operations of excision of the cornea in keratoconus. The only operation which comes into account at all is cauterization, and done without opening of the anterior chamber. The various techniques employed are given. Hirschberg, Kuhnt, Elschmig, Stoewer and Grünert.

CONCLUSIONS.—According to the general symptoms of the patient—result of blood examinations and the good therapeutic effect of thyroid in his case—the author concludes that keratoconus is a symptom of a general disturbance of some internal secretion; he also distinguishes congenital keratoconus associated with other deformities from keratoconus of acquired origin.

OPHTHALMIC REVIEW. April.

*1. A case of traumatic posterior lenticonus. J. H. Fisher.

*2. The importance of examining the feces and urine in eye diseases. S. H. Browning.

3. The control of the eye in cataract operations. Capt. F. W. Sumner.

*1. J. Herbert Fisher presents the bibliography of posterior lenticonus as gathered by Madame Gourfeinwelt and others. The theories advanced in explanation of the condition are given. The history of a case of traumatic posterior lenticonus appearing in the author's practice is given together with the treatment he prescribed.

*2. In the paper several cases of otherwise obscure etiology are cited. The cause of eye disease in the given cases was found to lie in

pus absorption along the alimentary tract, such as pyorrhoea alveolaris, also intestinal toxæmias and diseased conditions along the urinary tract.

THE OPHTHALMIC REVIEW. May.

*1. Blindness of left eye due to pressure of distended maxillary antrum. Pooley and Wilkinson.

*2. A case of enlargement of the eyeball. Beatson Hird.

*1. The history of this interesting case of temporary blindness is that on awakening in the morning the left eye was misty, and as the day advanced the vision became darker, with an obliteration of the whole field from below upward within 24 hours. The fundi were normal. The lesion was located anterior to the decussation, and the sinuses were suspected, which, on examination, disclosed a cystic distension of the left antrum. An operation on the antrum was performed through the canine fossa and a cyst and polypi removed. After the operation the vision of the left eye improved until it was again normal.

*2. Dr. Hird presents an interesting case of a boy 11 years of age with a very unusual condition of macrophthalmia, not associated with congenital glaucoma. The parents stated the left eye had always been larger than the right, and they thought the left side of the face larger. There was a distinct enlargement of the left eyeball, and the palpebral fissure was larger, although there was no exophthalmos. The intraocular tension was normal and was not influenced by the instillation of atropin. There was no evidence of stretching or thinning of the sclerotic. The left anterior chamber was distinctly deeper than the right. There was no tremulousness of the iris and the left pupil was larger than the right but normally reactive to light. Both fundi were quite normal and no pathological changes were noted at the discs. The child is myopic. The whole condition appears to be in a stationary condition and has remained so since the first observation.

THE OPHTHALMIC REVIEW. June.

1. Albuminuric retinitis. R. R. James.

THE OPHTHALMOSCOPE. April.

1. Contact infection carcinoma of the eye. D. V. Giri.

2. The No. 1 Royal Hungarian University Eye Hospital in Budapest. Prof. Emil v. Grósz.

3. Aqueoplasty. A. Zorob.
4. The ligamentum palpebrarum mediale. S. E. Whitnall.

THE OPHTHALMOSCOPE. May.

1. A case of traumatic multilocular implantation corneal cyst. T. S. Tirumurti.
2. Pulsation of the retinal arteries. A. J. Ballantyne.

THE OPHTHALMOSCOPE. June.

1. Some additional notes on sclerocorneal trephining. Lieut. Col. R. H. Elliot.
2. A scheme for the exact record of fundus changes in myopia. N. B. Haman.
3. Pulsation of the retinal arteries. A. J. Ballantyne.
4. Interstitial keratitis (congenital syphilitic) treated with salvarsan. G. F. C. Wallis.

ARCHIVES OF OPHTHALMOLOGY. May.

1. The use of vaccines in eye infections. J. G. Dwyer.
- *2. Herpes iris of the conjunctiva, with report of a case. H. Barkan.
3. Another view of the extraction in the capsule cataract operation. C. B. Meding.
- *4. Contribution to the pathology of hæmorrhagic glaucoma. J. S. Tahli.
5. The pathogenesis and therapy of facial eczema in children. Prof. F. Goeffert.

*2. Dr. Barkan presents the rather rare condition of herpes iris seen by him in Prof. Fuchs' clinic. Both eyes were red, with a glairy discharge and extreme photophobia. Associated with the eye conditions were loosened teeth, easily bleeding gums, sore throat, difficulty in swallowing, and nausea. A stay of several months in the ward failed to improve his condition, and as opacities developed on both corneæ he was rendered practically blind.

He had marked blepharospasm and ankyloblepharon. The conjunctiva was filled with yellowish white scars, between which the mucous membrane presented a hypertrophied follicular character. Marked ciliary and conjunctival injections were present. Since Prof. Fuchs' first description of herpes iris of the conjunctiva in 1876 twenty cases have been reported.

*4. Microscopical findings in hæmorrhagic glaucoma by the author gives the conclusions that there is a mild arteritis of the vessels of the nerve and retina, the intima of the central artery is progressively thickened as it approaches the disc and its lumen decreased. The cupping of the disc is marked, the retina atrophic with an œdematous condition and vacuoles, the deeper layers of the retina being much depleted. The normal vertical position of the rods and cones is altered. The ciliary processes are atrophic and vascular changes are found in the choroid, iris and also in the posterior ciliary artery.

REVUE GENERALE D'OPHTHALMOLOGIE. Mai.

Recherches experimentales sur l'action intraoculaire de metaux nouveaux. Rollet et Aurand.

It is well known that certain foreign metallic foreign bodies are tolerated remarkably in the eyeball, maybe for years, while it is promptly intolerant of others. The authors made thirty-three experiments, inserting aseptically uniform pieces of metal, approximately 2-3 mm. into the anterior chamber, the iris, ciliary body, and vitreous (postero-superiorly) of the hare. Conclusions:

1. Aluminium, tungsten, iron and steel provoke so slight a reaction that it is invisible, simply a fibrinous transformation of the aqueous bordering upon a light pseudomembrane.

2. Aluminum provokes no reaction in the vitreous and lies free in that tissue.

3. Nickel and chromium have only a suppurative inflammatory action comparable to that of copper in the anterior chamber and iris.

4. Nickel alone can, like copper, cause in the least degree degenerative lesions of the retina and a chronic sclerosing hyalitis.

5. In the ciliary body all the metals, even copper, cause only a slight transitory reaction, due without doubt to their constant spontaneous expulsion.

6. None of the experiments were followed by panophthalmitis. It seems then that the suppuration from nickel and chromium were due to a chemical action characteristic of each metal, analogous to that of copper, and which tended more or less rapidly to its encystment in most of the cases.

7. Half the specimens were encysted, especially in the anterior chamber and iris; this seemed favored by oxidation of the metal.

8. In none of the experiments with iron, steel or copper, even the

longest (six months) did the ocular tissues take the reddish tint of siderosis or of cupric diffusion.

9. Sympathetic ophthalmia never followed the experiments on the ciliary body, possibly because of the asepsis or rapid spontaneous expulsion of the fragments.

ANNALES DES MALADIES DE L'OREILLE, DU LARYNX, DU NEZ ET DU PARYNX. Mai.

1. De l'état du larynx dans la paralysie labioglossolaryngée. Lannois et Charvet.

2. L'examen de l'hypopharynx et de la bouche de l'œsophage. Boutin.

ANNALES d'OCULISTIQUE, Mai.

1. Traitement chirurgical de l'ectropion sénile de la paupière inférieure par le procédé de A. Terson. Résultats éloignés. H. Villard.

2. Recherches cliniques sur l'emploi de tonomètre de Schiötz (suite). A. Fourrière.

3. Les symptômes révélateurs de l'azotémie. André Weill.

ANNALES D'OCULISTIQUE. Juin.

1. Recherches expérimentales sur le trachome. Ch. Nicoole, Cuénod et Blaizot.

2. Un procédé de sclérectomie antiglaucomateuse. Kalt.

3. Une modification à la technique de la trépanation d'Elliot. Dupuy-Dutemps.

4. Du traitement d'ophtalmie sympathique par le salvarsan et le néosalvarsan. J. Chaillous.

5. Fistule cornéenne par enclavement capsulaire. Opin.

6. Kyste hydatique orbitotemporal. A. Gabriélidès.

7. Un cas de sarcome mélanique caverneux de la choroïde, au bord papillaire, avec perforation de la rétine. C. V. Lodberg.

8. Cylindrome de la paupière inférieure (type naissant du cylindrome). Duclos.

J. OF OPHTHALMOLOGY AND OTO-LARYNGOLOGY. June.

1. Syphilis of the eye. Dunbar Roy.

2. Observations on the treatment of acute suppuration of the middle ear. Perry S. Goldsmith.

NORTH AMERICAN JOURNAL OF HOMŒOPATHY. July.

*3. The fundus oculi in arteriosclerosis. Lloyd H. Clark.

*3. Every case or suspected case should be examined ophthalmoscopically. The pathological changes in the fundus are of very great value, are quite constant and very characteristic. They may occur very early or in the late stages of the disease. Suggestive or arteriosclerosis are: uneven caliber and undue tortuosity of the retinal vessels, increased distinctness of the central light streak, unusually light color of the arteries. The pathognomonic signs are more readily recognized: spasms of retinal vessels (an early sign) shown by localized transient contractions, tortuosity which may be like a corkscrew of some arterial twigs. Bruner considers this last only suggestive, and of importance only if associated with other signs. An early sign is true pulsation of arteries, characterized by slight lateral displacement most marked at bends; this disappears later when the walls have become rigid. A vein crossed by an artery is compressed and hence ampulliform peripheral to the artery. Sometimes arteries are accompanied by or turned into white lines; the artery becoming smaller than normal. Retinal hæmorrhages are important; they have been considered suggestive of cerebral hæmorrhage. The patient may be in an advanced stage yet show practically no rational changes.

ABSTRACTS.

Morgagnian Cataract.—Morgagnian cataracts are not common nowadays, owing perhaps to the practice of operation at the of maturity; the younger surgeons rarely ever see them. There are indeed but few references to them in the literature of the past ten years. Clinically such cataracts are usually monocular and long standing. They may be congenital or secondary to uveal disease. They never remain after traumatism nor after operative procedure. The cortex liquifies so that the nucleus floats more or less freely in the fluid within the capsule, causing the visual acuity to vary from time to time. The nucleus may remain permanently below the pupillary space and the vision may become destroyed, in some cases complete absorption ensues. Heberg strongly advises that cataracts should not be allowed to go on to hypermaturity, because of the dangers and complications likely to attend during the operation for their removal.—*Annals of Ophth.*

Sympathetic Choroiditis.—A boy, aged nine years, had been injured four days before he consulted Dr. A. Alt. In spite of treatment the inflammatory reaction was severe and resulted finally in a hypopyon. Gradually the inflammatory symptoms receded and the eye became somewhat softer. Two months later the patient was again seen, the fellow eye was affected, Alt believes by a sympathetic inflammation. Four and a half months after the injury, and a little over two months after the onset of the sympathetic inflammation, the choroiditis developed. When first seen there were found seven spots, differing in size and appearance, but all uniformly round and sharp in outline. The larger ones had an ivory color. The smaller ones were more yellow, and the smallest ones had a bright golden, shining appearance. We have then, in this case, one of the few hitherto observed cases of characteristic sympathetic choroiditis without a previous cyclitis, and an iritis which was of the mildest type and which never interfered with an ophthalmoscopic examination in the least.—*Annals of Ophthalmology.*

Stephenson on Salvarsan in Syphilitic Diseases of the Eye.—The remedy, he thought, was best given in series, by the intravenous route, and he was of opinion that it should be supplemented by mercurial inunction. He did not believe that it had any harmful effect upon the optic nerve, healthy or diseased. Its administration did not of necessity prevent the subsequent appearance of syphilitic disease of the eye. In the treatment of interstitial keratitis due to inherited syphilis, good results might be obtained by a series of injections, but a single injection, in Mr. Stephenson's experience, seldom produced any marked effect. Salvarsan acted better and more speedily than mercury in the iridocyclitis of secondary syphilis.

BOOK REVIEWS.

THE AMERICAN ENCYCLOPEDIA AND DICTIONARY OF OPHTHALMOLOGY. Vol. I.—A to Azoviolett. Edited by CASEY A. WOOD, M. D., C. M., D. C. L., Late Professor of Ophthalmology and Head of Department, Northwestern University Medical School; Ex-President of the American Academy of Medicine, of the American Academy of Ophthalmology, and of the Chicago Ophthalmological Society; Ex-Chairman Ophthalmic Section American Medical Association; Editor of "System of Ophthalmic Therapeutics" and "System of Ophthalmic Operations;" Mitglied der Ophthalmologischen Ophthalmological Surgeon St. Luke's Hospital; Consulting Ophthalmologist Cook County Hospital, Ill. Assisted by a large staff of Collaborators. Cloth, $9\frac{3}{4} \times 6\frac{1}{4} \times 2$ ", 727 pages fully illustrated. Sold only by subscription, \$10.00 per volume, carriage free. Chicago. Cleveland Press. 1913.

This, first, volume gives one a conception of the value of this monumental work and the labor involved. Fifteen pages are devoted to Ali Ben Isa, the most important of the Arabian ophthalmologists and his "Memorandum Book for Eye Doctors," the earliest special work on ophthalmology which has been preserved entire—written about nine hundred years ago; this was the standard text book on this subject for several centuries throughout Islam and Christendom. Forty-six well illustrated pages treat of after-treatment of ophthalmic operations, while the individual operations are considered alphabetically. A material proportion of the book is occupied with German, French, Italian, Latin and English terms, some of them obsolete. Anaphylaxis and its synonym allergy occupy five pages, with cross references to ocular anaphylaxis, which of course will be found in a later volume. Sixty pages are assigned to anatomy (gross) of the human eye, with eight beautiful full page colored plates; among these illustrations we particularly note those of the orbicularis palpebrarum and its attachments, Horner's muscle, dissection of the superior and inferior tarsal cartilages, and the relations of the extrinsic ocular muscles to the orbital connective tissue. Biographical sketches are given of deceased ophthalmologists of all ages and countries. Among these we find Henry C. Angell, of Boston. J. N. Anderson, of Canada, and T. F. Allen are not mentioned because it was impossible to get the material in time for this volume; if supplied in time they will be treated in the supplement. We are much disappointed that "astigmatia"—the only word discovered out of its alphabetical place—is slighted shamefully; no reason, beyond brevity and unity," is given in its justification. Surely in a work which aspires to be the most complete, scientific and up to date publication in English ophthalmology

the reader should have been told of Rev. Dr. Whewell's careless choice of stigma (a point in the sense of a mark) instead of stigne (a mathematical point) for the formation of the new term; this would have justified the plea of scholarship for astigmia in place of astigmatism.

As a dictionary this volume should explain azo since it winds up with a list of azo dyes in German rendered synonymously into English without stating that they are dyes. Their presence leads one to infer that they have some relation to ophthalmology, may be met in German ophthalmological literature.

DISEASES OF THE EYE. By G. E. DE SCHWEINITZ, A. M., M. D., Professor of Ophthalmology, University of Pennsylvania. *Seventh edition thoroughly revised*. Cloth, $9\frac{1}{4} \times 5\frac{3}{4} \times 2\frac{1}{2}$ ", 979 pages, 360 text illustrations and 7 chromolithographic plates. \$5.00, net; half morocco, \$6.00, net. Philadelphia and London: W. B. Saunders Co. 1913.

The three years since the last edition have been so rich in progress that our author has thoroughly revised this first class handbook throughout, adding 34 pages. For the first time special paragraphs are written on: Schiötz's Tonometer, Ophthalmodiaphanoscopy, Sporotrichiasis of the Lids and Conjunctiva, Widmark's Conjunctivitis, Rosacea Keratitis, Epithelial Dystrophy of the Cornea, Marginal Degeneration of the Cornea, Blue Sclera, Progressive Atrophy of the Iris Layers, Exudative Retinitis, Angiomatosis Retinæ (von Hippel's Disease), Cysts of the Retina, Blindness from the Aryolarsenates, Siegrist's Method of Local Anesthesia, Simple Trephining of the Sclera (Elliot's Operation), Reese's Muscle Resection, Toti's Operation (Dacryocystorhinostomia). Vaccine therapy, indications for the use of salvarsan and the bacterial origin of iritis and uveitis bring the book up to date. In recent years the author has more and more made an advancement operation to the exclusion of tenotomies; he advises that tenotomy should be avoided when possible—in most circumstances. In the discussion of advancement operations it is a great pity that no mention is made of George's advancement forceps* by which one can readily advance or tuck the muscle the desired number of millimeters by means of a set screw. The publishers have surpassed themselves in the binding.

OPHTHALMOSCOPIC DIAGNOSIS BASED ON TYPICAL PICTURES OF THE FUNDUS OF THE EYE WITH SPECIAL REFERENCE TO THE NEEDS OF GENERAL PRACTITIONERS AND STUDENTS. By DR. C. ADAM, Asst. to the Kgl. Univ.-Augenlinik, Berlin. Translated by MATTHIAS

*JOURNAL OF OPHTHALMOLOGY, OTOTOLOGY AND LARYNGOLOGY, Aug., 1911, page 294. Discussion of Suffa's "Operations Upon the Lateral Eye Muscles for Strabismus." The instrument is made by F. A. Hardy & Co., Chicago and New York.

LANCKTON FOSTER, M. D., Ophthalmic Surgeon New Rochelle Hospital; Member American Ophthalmological Society; Member American Academy of Ophthalmology and Otolaryngology. Linen, $11\frac{1}{4} \times 7\frac{1}{2} \times 1\frac{1}{8}$ ". \$6.00. 229 pages, 86 colored pictures on 48 plates and 18 text illustrations. New York. The Medical Art Agency. Rebman Co., Sole Agents. 1913.

This is not merely an atlas; the exceptionally fine plates are presented as aids to the systematic guide to diagnosis for which purpose the text has been written and arranged. The author dedicates his work to the memory of von Michel, following out the latter's idea of bringing into bold relief the relations between diseases of the eye and those of the general organism and considering the conus to be an indication of acquired myopia while posterior staphyloma is an indication of congenital myopia.

The coloring of the plates, admirable at all times, is more like that seen with the ophthalmoscope if one illuminates it (during the day) with gas or incandescent light.

NORMAL HISTOLOGY, A GUIDE FOR PRACTICAL INSTRUCTION IN HISTOLOGY AND MICROSCOPIC ANATOMY. By RUDOLF KRAUSE, A. O. Professor of Anatomy at the University of Berlin. Translated by PHILIP J. R. SCHMAHL, M. D., New York. Part 1. Linen, $10 \times 6\frac{1}{2} \times 3\frac{3}{8}$ ". 86 pages, 30 text illustrations and 208 colored pictures on 98 plates after original drawings by the author. Price, 75 cents. New York: Rebman Co. 1913.

Modern instruction in histology is didactic and demonstrative—in its essential phases—the student receiving mounted specimens for study; the majority of "our" (German?) students enter the clinical semesters unable to prepare a useful microscopical specimen. This volume offers a course to prepare one to make and mount a good slide from any organ.

This work—as would be expected at the hands of such a man—covers the ground clearly and tersely, not only as to text but by arrangement and type. Optics are made comparatively clear by using colors for different lenses and images. Talking of preservatives: formalin is neutral when fresh but becomes acid gradually from the formation of **formic acid**; it can coagulate a large number of albuminous bodies, yet possesses good penetrating power and in no way diminishes staining properties.

KRAUSE'S NORMAL HISTOLOGY. Part 2. Linen, $1\frac{1}{2}$ " thick. \$5.50.

This volume is rich in beautiful colored plates; the cell occupies 24 pages, then the animal body is taken up as to its tissues—epithelium, connective tissue, cartilage, bone, muscle, nerve and blood—followed by consideration respectively of the organs—circulatory, glands, of

digestion, respiration, urinary and genital, of motion, of the nervous system, of sense and the skin. The eye is studied by the following sections: through the anterior portion of the human eye, equatorial sections through the lens of the rabbit, monkey's eye, ditto retina, retina of guinea pig, ganglia cells from the latter, cornea of the sheep, of the cat, upper lid of a child. The ear by auditory organ of a young cat, ductus cochlearis of ditto, and the nose by olfactory epithelium of the sheep. The illustrations are well selected and well colored. The publishers, as usual, have turned out two handsome volumes.

PATHOLOGY OF THE EYE. By P. H. ADAMS, M. A., M. B., D. O. Oxon., F. R. C. S., Surgeon to Oxford Eye Hospital; Consulting Ophthalmic Surgeon to the Radcliffe Infirmary. London. Oxford University Press; American branch, 25 W. 32d St., New York. 1912. Cloth, rounded corners. $5\frac{3}{4} \times 7\frac{1}{4} \times \frac{5}{8}$ ". 194 pages, illustrated. \$1.50. This handy volume of the Oxford Medical Publications is founded on a series of demonstrations prepared for men attending the course for the Oxford Doctor of Ophthalmology. It will be of use to others working for examinations or who are dependent upon their own exertions for pathological eye work. Possible confusion is avoided by giving the simplest methods, but the author has found these efficient. Practical pathology in detail is followed by chapters upon the several structures of the eye, one upon general diseases affecting the eye and finally on the bacteriology of the eye. In the last chapter the bacilli and cocci are classified as Gram positive or negative followed by the lesions they cause with their distinguishing features. The treatment is so clear and concise as to make the subject seem very simple.

DISEASES OF THE EAR, NOSE AND THROAT, MEDICAL AND SURGICAL. By WENDELL CHRISTOPHER PHILLIPS, M. D., Professor of Otology, New York Postgraduate Medical School and Hospital; Surgeon to the Manhattan Eye, Ear and Throat Hospital; Fellow of the American Laryngological, Rhinological and Otological Society; Fellow of the American Otological Society; Fellow of the American Academy of Ophthalmology and Otolaryngology; Attending Otologist to the Postgraduate Hospital and Babies' Wards; President of the Medical Society of the State of New York. *Second revised edition.* Illustrated with 545 half tone and other text engravings, many of them original, including 31 full page plates, some in colors. F. A. Davis Company, Publishers, Philadelphia, Pa. 1913.

The exhaustion of the first edition of this work within one year would naturally demonstrate the popularity and usefulness of this book.

Each chapter and almost every paragraph is so written right to the point and in such an easy flow of language that one's attention is

riveted to the subject while reading. No enumeration of the numerous theories or discarded methods of treatment and operations waste the book space or the reader's time, but only the most practical and recent measures for relief and cure are given.

The most characteristic portion of the book is its part second, "The Influence of General Diseases Upon the Ear, Nose and Throat," occupying seventy-five pages. While this might still receive more lengthy consideration with benefit, still it is the most thorough and only commensurate instruction on this subject which the reviewer thinks has been included in any text book. The existence of such conditions has been appreciated by all practical observers in this field, and we consider that the author has shown his scientific broadmindedness by giving this subject so extended a space. This part is divided in four sections including the effects on the special organs of tuberculosis, lupus, syphilis (in its various forms), diphtheria, scarlet fever, measles, typhoid fever, typhus fever, etc.—thirty-seven diseases in all. This small section alone makes the book worth buying for any student or younger practitioner.

In the second edition the author has added some very good radiographic illustrations of the mastoid cells and nasal sinuses, and a chapter or paragraph on status lymphaticus, Holmes' nasopharyngoscope, Sluder's pharyngeal tonsillectomy and a new hæmostatic method in tonsillectomy.

The text is most profusely illustrated; not infrequently some of these contain two different pictures of a certain specimen. Anatomical illustrations are not disfigured with markings and names but have accompanying an outline drawing containing such. Also noticeable are several pictures exemplifying the methods of operating, for instance that of bronchoscopic manipulation is found on pages 812 and 813.

The grade of illustrations, paper, binding is fully in keeping with the high grade of the book.

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No. 9

EDITORIAL.

WHAT IS IMPLIED BY THE DESIGNATION "OFFICIAL JOURNAL?"

IN this issue is published a paper presented to the American Homœopathic Ophthalmological, Otological and Laryngological Society at its recent meeting last July, which appeared in the July issue of another journal—one which is the official journal of another society.

The editor of that journal knows that it is and has been the policy of this JOURNAL not to publish (except in abstract or translation) any paper after its appearance in public print. He knows that this JOURNAL is the official organ of said society. As a matter of fact both journals make the announcement to this effect with each of their issues, and the Society this year printed prominently on its program the announcement of this JOURNAL being its official organ, a relation which has been held for years.

It is common usage to consider that papers read before a society become its property. This society adopted in 1900 and publishes in its Transactions a standing resolution to the effect that "All papers presented before this society shall become its property and be *first* published in its official organ."

On the other hand, it is the duty of the official journal to publish all papers presented to the society, unless the Committee on Publication decrees otherwise.

From the above it appears that both the author and editor in question are without excuse, except that the editor did not know of the standing resolution.

Instead of asking the Committee on Publication for permission to omit publication of this paper, the writer utilizes the incident to call attention to the above facts and to editorial courtesy, with the hope that no such situation will again occur in this or any other society.

THE STUDY OF HOMŒOPATHIC MATERIA MEDICA.

The following discussion by Dr. Philip Rice of Dr. Helfrich's paper (on a subsequent page) is so suggestive that it should have editorial prominence.—J. L. M.

My remarks I wish to base not so much upon the subject matter of the paper just read as upon the subject of materia medica study. If I seem to be a little beside the mark I would ask you to withhold your criticism a few moments, when I think it will become perfectly clear that they are distinctly pertinent to the subject of therapeutics.

What, let me ask, is the purpose of this paper or, for that matter, of every paper on the subject of therapeutics? Is it not to instruct us in the use of remedies for the cure of disease? Clearly that. But does the method of instruction appear to be fulfilling the purpose? Do our writers on materia medica and therapeutics appear to be coping with the problem?

For an answer let each ask himself how far their methods have been successful with himself. Personally I am willing to admit that after years of wading through pages and pages of lectures on therapeutics and symptomatology and struggling to acquire even a fair understanding of the subject of drug action I have but a smattering of knowledge of it. There have been times during the twenty years that I have been in practice when for weeks I would scarcely study anything but materia medica, so determined was I to become proficient in the art of prescribing. Yet I could not without preparation or notes give a ten minute lecture on the best known remedy in the pharmacopeia. Repeat symptoms? Yes; that I could possibly do, as others can do. But that would not signify that I knew anything about the symptoms. Some parrots have a large vocabulary, but the question is: how much do they understand about language? My opinion is that unless one is able to explain the real meaning of symptoms he is ignorant of materia medica. And by "real meaning" I mean, is able to account for the fact that certain drugs affect certain organs and tissues and other drugs affect others, can explain why one person is immune to a certain drug while another is susceptible, can, in short, explain a dozen and more things about symptoms of which we are now ignorant altho we have spent years in trying to learn them.

We have listened attentively to the reading of this paper; how much are we able to recall of it right now? Very little. And how much will we be able to recall to-morrow, and next week? Little or nothing.

Of course, we say to ourselves that we will study it carefully when it appears in print; that the subject matter of such a paper can only be grasped in that way. This is true, but in a measure only. Isn't it true that we have read these remedies and symptoms over many times already? have given them about as careful attention as we are likely ever to give them again? and yet we know very little about them. Isn't it a fact that our knowledge of *materia medica* is not at all commensurate with the time and energy we have spent on it? I am more and more convinced that this is the truth.

How can we get hold of the contents of this paper? There is but one way, and that is to sit down and commit it to memory. This is obviously impossible and impracticable. And what is true of the contents of this paper is true of the whole *materia medica* as it is constructed to-day. I have no hesitancy in saying that in my opinion our works on *materia medica* and therapeutics are so faulty in construction as to make them impractical, even absurd, and have done much to retard the progress of the school.

Struggle as we will our knowledge of drug action is so meager that some of us have almost wholly discarded drugs in our daily work; surgery and other mechanical methods have supplanted them quite entirely. Some of us use them but in a routine, even slipshod manner only. And all this not because we do not believe in their efficacy and in the superiority of the homœopathic method, but simply because our knowledge of drug effects is too inadequate to the requirements of our work.

This is all wrong, and every one of us knows it. Dr. Helfrich's paper and others like it are good in a way for they do help to keep up our spirits somewhat; but the point I wish to make is that the method in which these drug effects are presented is not at all adequate. We cannot learn them that way; as the absence of good *materia medica* men in our ranks clearly proves.

Ask yourself why you do not prescribe homœopathically more than you do. Your answer will be: because I do not know how, and not because I do not believe in the homœopathic principle. This answer I have received scores of times from men in our ranks.

For ten years I have tried to solve the problem of why so few homœopathic physicians are truly homœopathic in their daily work. And I am thoroughly convinced that it is because they are unable in the stress of their work and the demands of other phases of medical study to learn the *materia medica* readily and well enough to enable

them to rely upon it. Palliative effects of drugs are more easily learned, and these with surgery enable them to get along and give some measure of relief to suffering humanity.

I hear some one say, "It is easy enough to criticize and tear down, but not so easy to build up. Give us something to take the place of the old." I admit all this. But let me say that it is necessary to tear down an old structure before you can build a new one in its place; and not infrequently it is a difficult task to make some people realize the need of tearing down. The great majority in our school cannot yet see that we need something different in the way of a method of materia medica study. They point with vigor to the achievements of the pioneers in the work, forgetting however that we have several hundred more remedies, ten thousand more symptoms, than Hahnemann ever dreamed of, besides a number of other studies to keep up in which were unheard of until the last generation. They will insist on the old way when the fact of its inadequacy stares them in the face whichever way they turn.

I do not believe it will be an impossible task to find some other method when once we come to a realizing sense of the need of another. In the February number of our official journal I presented a few thoughts along this line. Having made some efforts in the direction pointed out I am ready to say that it is an entirely feasible plan, and not nearly so complex and difficult as some may imagine.

The first and most important thing is to appreciate the need of working out a new and more practical method, and the second is to get some institution to take hold and develop it in its clinics and laboratories. If the work is left to men and women who have their hands full building up and holding a practice then it will be slow in coming and probably imperfectly done. The more I think about this matter, and the more I investigate the condition of our school, the more am I convinced that unless something is done about it within the next five, or at most ten years, absolute doom is before us.

THERAPEUTICS OF THE NOSE.

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New York.

IT should be a source of intense gratification to every homœopathic physician that, besides the usual surgical methods, topical applications, sanitarium, etc., he has a system of therapeutics based on a law of symptom similarity by which he is enabled to scientifically prescribe and effect cures more quickly and permanently than is possible for those who never investigate, but constantly attempt to belittle, homœopathy.

In the paper which I have the honor and pleasure to present to you I shall have little which has the odor of newness surrounding it, but which nevertheless never loses its flavor and is always wholesome and worthy of our notice. Besides that which is truly homœopathic the therapeutics of the nose would not be complete were I to ignore the means at hand for the proper toilet of the mucous membrane with all of the physical therapeutics which we have at our command; each of which may at times be of decided value to him who has the best welfare of his patient at heart.

Homœopathic prescribing never contemplates the application of certain remedies to other certain named diseased conditions. In giving herein some arbitrary names followed by remedies which are likely to find a place in the their cure, I do not desire to be understood to mean that these are speccifially indicated for the cure of the diseases named. They are merely intended to lead the way to the selection of a remedy by the careful comparison of individual symptoms as found with the recorded symptoms of the proven remedy. In no other manner can the exact homœopathic remedy be found.

Nasal catarrh commands the attention of a large proportion of the population of this country, whether from the varying and sudden temperature changes to which we are subject or the irritating alkali dust of some sections. Whatever will tend to the alleviation of this condition when presented for our consideration will be most welcome to both patient and doctor.

CATARRHAL REMEDIES. As a list of remedies which are frequently

found to be of service in catarrhal conditions of the nose, the following are well to bear in mind: Acon., ars., aurum, bell., brom., calc., eupatorium perfoliatum, euphrasia, graphites, hepar, kali bi., kali iod., lach., lyc., mercurius, natrum mur., nux vom., puls., rhus tox., selen., sepia, silicea, spigelia, squilla, and sulph.

The nose was intended to be self cleansing but, living under conditions far removed from nature, we are justified in assisting in the cleansing process and we bring to our aid some bland, alkaline solution, to cleanse the mucous membrane and an oily spray to lubricate the same parts for a while. Well suited to the purpose is a normal salt solution followed by plain fluid albolene. A clean mucous membrane tends to recovery and should be obtained. A restoration of the normal gland supply is best attained by some remedy selected by an analysis of the symptoms peculiar to the patient at hand and it is surprising what marked changes will follow the application of a remedy really homœopathic to the patient. Do not fancy that because you are giving your patient remedies from your case of drugs that you are treating the patient homœopathically, be it low or high potency, unless you have been careful to select it by the observance of the law of similars. A lack of appreciation of this fact has done much to discredit homœopathy as many have said that they have tried their homœopathic remedies without having results and have therefore taken to other methods; whereas they had not used the real similar at all owing to careless study of the symptoms and modalities of the case.

In catarrhal colds we have a number of symptoms which are to be reckoned with in trying to effect a cure. One of the first is

DRYNESS of the NOSE. When this is combined with a chilliness due to an exposure, Camphor, given in drop doses of the tincture, three or four doses at intervals of fifteen minutes or so, will very often abort a cold. If the exposure has been to cold winds, Aconite will be likely to be the remedy and the 6th potency will act beautifully. Other remedies having dryness predominant are: Ars., bar. c., bell., berb., bry., calcarea, carbo veg., caust., cham., chel., dig., graph., hyos., iod., kali bi., kali c., lyc., mang., mercurius, nat. mur., nux m., nux vom., petr., phos., psor., rhus tox., rumex, sambucus, senega, sepia, silicea, spongia, sticta, sulphur.

SNEEZING. When this is a marked symptom in connection with the rhinitis we are attempting to relieve, compare the following: Acon., all. c., amm. m., arg. n., arsen., aurum, badiaga, bar. c., bell, bry.,

calcareo, caps., carb. an., carb. veg., caust., china, cina, dulc., euphrasia, eupator. perf., graph., iod., kali bi., kali iod., lach., lyc., merc., nat. c., nat. mur., nux vom., puls., rhus tox, sabadilla, sanguinaria, sepia, sil., spongia, squilla, staph., and sulphur.

It may be of assistance to those who are anxious to cure their nose diseases with a remedy to have the subjoined list of remedies and their application.

ACONITE. When a cold is contracted from exposure to the cold winds of winter, aconite is valuable when given during the first stage, when the nares are hot and dry, and a sensation of chilliness is present.

ARSENIC. Where there is an excoriating discharge from the nose, which is thin. The patient feels worse when near the fire yet is chilled if he goes out of doors. Constant sneezing which does not relieve. Worse after midnight usually.

ALLIUM CEPA. There is an excoriating discharge here also, but the eye discharge is bland, which will serve to differentiate. Patient is worse when entering a warm room.

MERCURIUS. This causes excoriation of the lip, but it is thicker than the discharge of arsenicum. Aggravation at night.

ALUMINA. This is indicated when there is a chronic nasal discharge, internal soreness of the nose and a tendency to slight cracks at the tip, causing soreness to the touch. Patient is usually constipated.

ANTIPYRINE. Thin, watery, irritating discharge from the nose and eyes. Long continued sneezing. Intense itching and burning in palate extending to nose, ears and eyes.

ANTIMONIUM CRUD. Indicated where we find a nasal discharge with a tendency to crusting of the nostrils coupled with an eruption around the nose and mouth.

ARUM TRI. Where there is an excoriating discharge from the nose with complete obstruction and marked soreness and burning of the nose.

AURUM. This remedy is chiefly indicated in chronic nasal conditions. The periosteum is affected with consequent soreness on pressure. Caries. Ulceration. Fetid discharge.

BELLADONNA. Sudden redness and burning at the tip of the nose. Internally there is dryness and tickling which is apt to provoke prolonged fits of sneezing. Very sensitive to all odors. Smell of tobacco is intolerable. Patient has sensation of the odor of fish brine in nose.

BRYONIA. Useful for catarrhs during sudden changes in the weather

from warm to cold. First stage dryness of the nose. Later the discharge may be thick with pain over the eyes, agg. by every movement in walking.

BROMINE. There is a pressure at the root of the nose and the watery discharge is excoriating. Internal soreness.

AMMON. CABR. When the nasal obstruction is mostly at night. In children they awaken and sit up crying for breath.

AMMON. MUR. Here the nose is obstructed and there is an acrid discharge and there is sometimes a peculiar sensation of cold between the shoulders.

CAMPHOR. This remedy has long had the reputation of being able to abort a cold if it is used at once upon the advent of the chilliness. The nose feels dry and there is some sneezing.

CARBO VEG. Nosebleed in old people. Varicose veins on the nose.

COLCHICUM. The odor of cooking causes nausea and disgust for food. A valuable symptom in various conditions.

ELAPS. Fluent coryza. Frequent nosebleed. Nose stuffed up. There is a distress in the stomach after cold drinks.

EUPHRASIA. The indications are quite the reverse of *allium cepa*, for here we give euphrasia for an irritating lachrimation and a bland nasal discharge. Cough and expectoration.

FERRUM PHOS. Nose day after taking a cold. Patient does not respond after his usual bath but the lips become bluish.

GELSEMIUM. Summer colds. Excoriating nasal discharge with pain extending to the ear. Deafness. Every change gives him cold. Malaise.

GRAPHITES. Soreness of the nose with formation of scabs. When there is a crack in the corner of the naris.

HAMAMELIS. Profuse epistaxis with feeling of tightness at bridge of nose.

HEPAR. Nose pains as if there was a boil on it. Pains seems to be in the bones. Mercurialism.

HYDRASTIS. An excoriating discharge which seems to be mainly confined to the posterior nares, the irritation running down into the throat. Loss of appetite, constipation.

IODINE. When the nasal discharge is fluent and makes the nose sore with headache in the frontal region and at the root of the nose.

KALI BICH. The secretion is tough, stringy and is particularly adherent to the sides of the nasal cavities and to whatever it may touch.

Ulcers on the septum look as if they had been punched and are deep. Sensation of dryness. Plugs of mucus form and are difficult to dislodge. Great obstruction of the nose.

KALI IOD. The secretion is thin and watery and is profuse. Pains in frontal and ethmoidal sinuses.

KALI NIT. It is reported that this has entirely cured a nasal polyp on the right side.

LYCOPodium. Stuffiness of the nose when it occurs at the time of usual aggravation of the drug, 4 to 8 p. m. Nose dry. Mouth breathing caused by the presence of adenoids.

MAGNESIA MUR. A catarrh accompanied by soreness of the nose with sneezing and watery discharge. Pains in eyes with feeling as if skull would burst. Better in the fresh air. Constipation.

MARUM VERUM. Polypi. Blows the nose but the obstruction is not removed. Sensation of crawling in the nostrils. Sneezing of nervous origin.

MERCURIUS. Excoriating discharge which is thicker than the arsenic discharge. Often agg. at night.

NAJA TRIP. Stuffiness of the nose with sensation of suffocation. Hay fever.

NATRUM ARS. Nose stuffed, fluent coryza, pain in the eyes and the balls feel too large.

NATRUM CARB. Thick yellow discharge from the nose. Sometimes sneezing which is accompanied by thin watery discharge. Agg. from all draughts. Nose obstructed at night.

NATRUM MUR. Watery discharge from the nose and eyes. Loss of smell and taste. Sensation as if sand was in the eyes. Vesicles around nose and lips.

NITRIC ACID. Nose ulcerated and sore. Fluent coryza but still obstructed. Postnasal catarrh.

NUX VOMICA. Sneezing in the morning in bed. Fluent coryza on rising. Scraping in throat. Nose obstructed at night. Agg. in the house, amel. in open air.

PETROLEUM. This is another remedy where we find a tendency to cracks at the margins of the nostrils. Formation of crusts. Postnasal catarrh with tendency to deafness.

PHOSPHORUS. Not likely to be needed in acute cases but when chronic and if the bones are implicated. Soreness to touch. Nose swollen. Caries of nasal bones. Bleeding frequently.

PULSATILLA. Nose stuffed up in the evening. Much better while in the open air. Thick yellow mucus in the morning. Yellowish-green discharge from nose. Discharge is bland. Sometimes complicated with facial neuralgia, agg. when warm in bed.

RHUS TOX. Nose red and painful at the tip as if it would suppurate. Sore internally. Sneezing particularly at night. Coryza accompanied with aching all over. Colds taken after a hot bath.

SABADILLA. Itching and dry sensation high up in the nose. Nostrils obstructed. Violent sneezing shaking the abdomen. Lacrimation after sneezing. Oftentimes indicated in hay fever.

SAMBUCUS. Suffocating nasal discharge in children when the child awakens and starts up suddenly gasping for breath.

SANGUINARIA. Coryza with pressing pain at root of the nose. Alternation of fluent and dry coryza. Loss of smell and taste.

SILICEA. Usually indicated in chronic forms of nasal catarrh with an offensive discharge. Eustachian tubes apt to be involved. Soreness of nose internally.

SULFUR. Nose inflamed and swollen. Itching, with burning sensation. Constant desire to blow though there is no mucous discharge. Sensation as if a cold were coming on. Sneezing, which relieves the head.

ADENOIDS. Adenoids may be considered a disease of the nose as far as the treatment is concerned, for many cases of obstruction of the nose are caused directly by the congestion produced by the presence of adenoids and will disappear promptly as soon as the adenoids are removed.

ARGYROL. We owe a debt of gratitude to Dr. J. Ivimey Dowling for his method of using argyrol in solution in the nose for the relief of inflammation of the sinuses and cells therein. Used in an 8 per cent. solution and applied on properly made cotton tampons it has wonderful effects in drawing the pus from the cavities and healing, or permitting nature to heal, the diseased memberane.

ELECTRICITY. A mild current from a high-frequency machine, given by means of a vacuum nasal tube, will assist in making perfect cures in ozena if persisted in.

DOUCHES. Alkaline douches, preferably by a postnasal syringe, are valuable in keeping the mucous membrane clean, without which cures must at least progress slower.

OILS. The use of a bland oil to the mucous membrane of the nose is

valuable for the lubricating effect it has, thereby preventing the formation of crusts. Should be used after the alkaline douche. Should be used after all forms of intranasal surgery until the mucous membrane has been fully reformed.

616 Madison Avenue.

Gonorrheal Ophthalmia; Treatment with Gonococcus Vaccines.—Mittendorf observed that in gonorrheal ophthalmia the gonococci were present in the cells of the conjunctiva and the cornea in small colonies, few of them being free. So few were actually found in the many pus cells in each field examined that the natural inference was that could an immunity be established for the actual corneal and conjunctival cells below the outer layer, the disease should run a mild course without any serious complications and yield more readily to the usual external treatment. The fact that these bacteria grow best or at all satisfactorily only on blood-serum cultures was also in favor of the treatment by rendering the serum of the patient a poor culture medium for their growth. The first 9 cases so dealt with showed very marked results. There was prompt reduction of the swelling of the lids, and the deeper tissue of the cornea and conjunctiva seemed to be protected quite effectively against the invasion of the gonococci, as shown by cases in which there were abrasions of the cornea.

The vaccines used were stock vaccines of three different laboratories and purchased in the open market. Fifty million gonococci as an initial dose and one hundred million as subsequent doses did not affect even small babies in any untoward manner locally or systematically, and double this dose was used for adults, and was well borne. The cases were treated along with others in which the old treatment alone was used. Many of the latter ran a course of six to eight weeks, during which the swelling and discharge persisted for a long time.

In no case treated with vaccine was the result at all unsatisfactory. The vaccine should be supplemented by measures of local cleanliness and antiseptis.—*Med. Rec.*, March 8, 1913.

TWO CASES OF SPONTANEOUS CATARACT OPERATION.*

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IN the formation of cataract the lens first swells. As the opacity increases in density the swelling subsides so that when the cataract has arrived at maturity the size of the lens is about normal. This is the most favorable time for operation. If the cataract is not operated upon at maturity it undergoes gradual shrinkage. The capsule and zonula which hold the lens in position participate in the atrophic process and become proportionately weakened. As a result of this atrophic process, the hypermature cataract is very apt to become dislodged into the vitreous. This accident is sometimes announced by a terrific attack of acute glaucoma.

One of the worst cases which ever came under my care had this history. The lens was successfully captured and removed, but the complications resulted in subsequent inflammation necessitating the removal of the eye.

When the atrophy goes on after the cataract has matured and the lens shrinks it will sometimes drop to the bottom of the capsule and leave a clear, crescentic space between the upper edge of the cataract and the upper edge of the pupil through which the patient can get vision with the cataract glass. The lens also sometimes disappears entirely, leaving a clear pupil. This happened in the two cases herewith reported:

Case 1. Twenty-four years ago, before leaving the East, I examined the eyes of Mrs. E. W. K., at that time aged about 40. The right eye was normal but the left had always given trouble and the vision was poor. At that time it contained an incipient cataract. I had never had an opportunity to examine the eye again until a few weeks ago. I had been informed however by her husband, who was a physician, that the cataract had gone on to maturity and the eye was blind. Upon examining the eye during the past winter the pupil seemed black and the iris fluttered, indicating absence of the lens. This examination took place at the residence where facilities were lacking, but suspecting

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what had taken place I held my magnifying lens of about 16 d. before the eye, after covering the seeing eye. She was astonished to find that she could distinguish objects, see the telegraph poles on the street and identify people who were passing. Subsequent examination with the test lens in the office, showed that she had a vision in that eye of 6/18 with a plus 11 spherical lens.

Case 2. Mrs. P., of Tacoma, Washington. This patient was under my care for uveitis of both eyes. The right eye had been impaired for fifteen years and at the time of my examination vision was restricted to counting fingers at 2 meters. The left eye read letters $2\frac{1}{2}$ inches in diameter at twenty feet, but had been failing. The iris of the right eye was adherent to the lens which showed an immature cataract. Treatment was directed to the left eye and an iridectomy was advised but declined. The right eye was considered hopeless or, at any rate, not a favorable subject for operation. This was the condition of the patient at the time I left Tacoma in 1897. A few weeks ago she called upon me at my office and gave me a most interesting history. The eyes continued to get worse for two years, until she became totally blind.

Some three or four years ago, "in answer to prayer," as she believed, she suddenly began to see light in the right eye and inside of two days could distinguish moving objects. This encouraged her to see if glasses would not still further improve the vision and upon examination she was delighted to find that with a plus 10 lens, she could see distinctly at a distance and with a plus 14 lens could read. Examination in the dark room disclosed a small pin head pupil, perfectly clear with a fluttering iris. The lens had evidently degenerated into a hypermature cataract which had shrivelled and finally slipped from its position leaving the pupil unobstructed. The left eye was absolutely blind.

I have no doubt that both of these cases could have been restored to useful vision had the cataracts been removed at maturity. Where one eye is good and the other contains a mature cataract it is always my practice to advise operation. The reason for this is two-fold: first, it enlarges the field of vision so that the patient is protected from the danger of moving bodies approaching the affected side; second, the mature cataract is always a source of danger if left to shrink. When one eye is normal and the other has been operated for cataract, the patient cannot use the two eyes together, although vision may be

normal. This is because there is too great a difference in the structure of the two eyes to enable them to achieve single vision comfortably. I therefore instruct the patient to depend upon the unoperated eye for his working vision and to disregard the operated eye. At the same time, should the normal eye become subsequently cataractous the operated eye is ready to resume its function.

I should be sorry if this paper should encourage any one afflicted with cataract to postpone operation in the hope that ultimately they might regain their vision, as happened in these two instances. Such cases are of extreme rarity, and a person with cataract as a rule blind until the same is removed by operation. Moreover, it would have been better in the first case cited if the cataract had been removed at maturity, as it would have probably prevented a very trying and painful condition of both eyes which exists at present.

A cataractous lens dislocated into the vitreous acts as a foreign body, setting up slow and degenerative changes which generally in time destroy the eye. The original operation for cataract was called "couching" and consisted in pushing the lens downward into the vitreous with no attempt at removal. This procedure was quickly abandoned because of the serious complications which inevitably followed.

It is not only inadvisable to allow a cataract to become hypermature but it is not always advisable to wait for maturity before operating. Some forms of cataract mature very slowly involving an indefinitely long period between the loss of useful vision and maturity. The patient can see just enough to grope his way about but is comparatively helpless so far as any useful or diverting occupation is concerned. I have for several years adopted a method of operation which makes it possible to operate unripe cataract with as much certainty of success as attends the operation for mature cataract; this is achieved by irrigation of the anterior chamber after removal of the lens, which, if properly done, washes out the residual lens substance, preventing the formation of secondary cataract.

To cite an instance: Mr. A. B. C. came to me a year ago with nuclear cataract. He could count fingers at five feet and could get about alone but he wanted to see so that he could read and occupy himself about his place. He was operated with such satisfactory results that he returned a few weeks ago to have the other cataract removed, which was also successfully done.

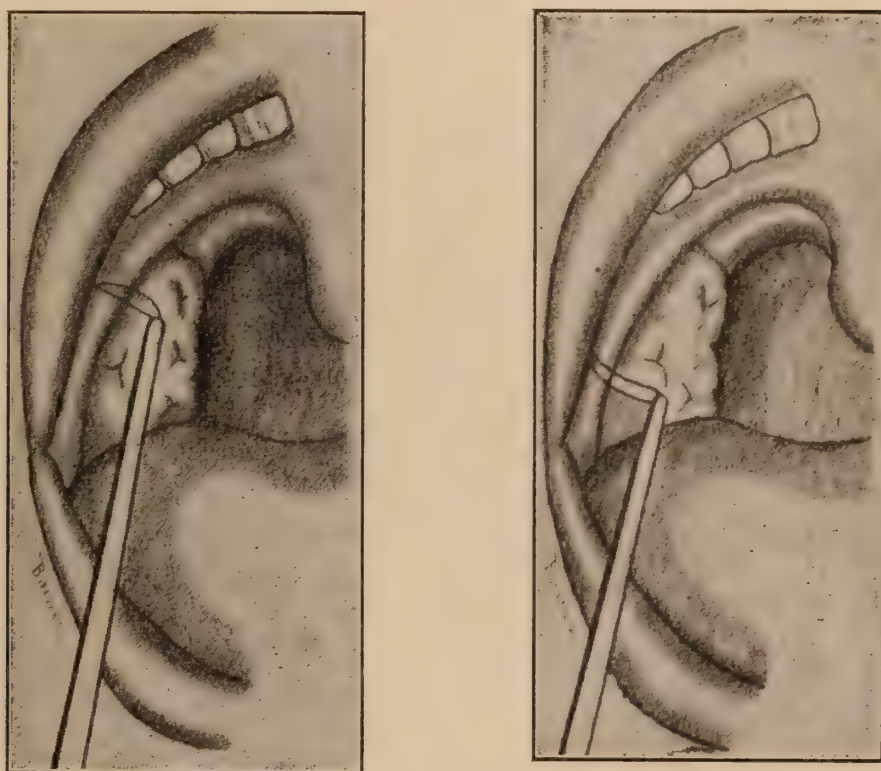
618 Auditorium Building.

PACKING THE TONSILLAR FOSSA AFTER TONSILLECTOMY TO PREVENT HÆMORRHAGE.

F. B. MACMULLEN, M. D.,

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THE fact that hæmorrhage following tonsillectomy is a dangerous as well as a disagreeable complication has been forcefully impressed upon the mind of every laryngologist at some time in his career. The following report of twenty-five cases is a consideration of tonsillectomy in the adult under local anesthesia: cocain four per cent. one part, adrenalin 1-1000 one part, distilled water two parts.

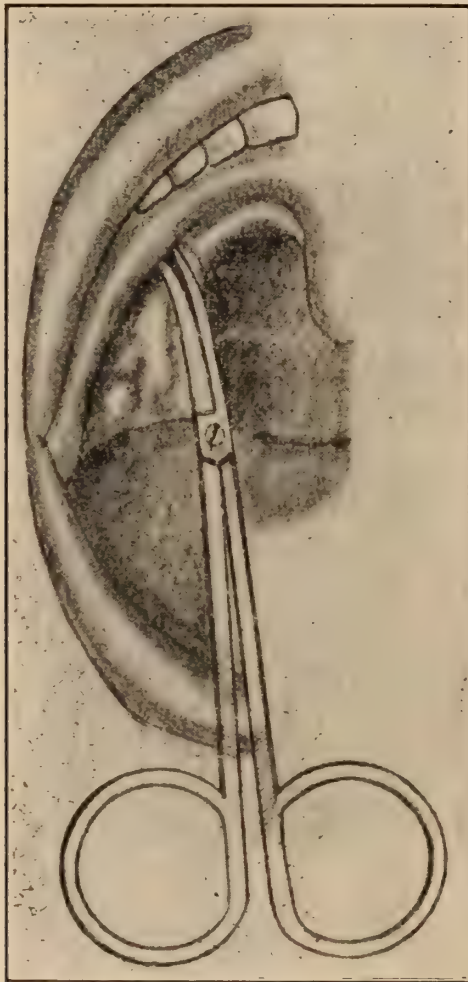


FIGS. I AND II.

The most dangerous hæmorrhages in our experience have come a few hours after the operation, when the action of the adrenalin has spent itself and the vessels begin to expand. Without packing, in other words depending upon clot formation, one feels reasonably secure when a clot of good size has formed, usually eighteen to twenty-four hours after the operation. Slight oozing and sometimes active

hæmorrhage takes place even after clot formation. Hæmorrhages may occur any time within five days after the operation, but are unusual after the first twenty-four hours.

The use of any packing presupposes a clean fossa with no injury to either the anterior or posterior pillar. The general technique followed in these cases is the technique of Dr. Dean W. Myers, from whose clinic these cases were taken. Sharp pillar knives, scissors and tonsillotome are used. The right knife is inserted back of the anterior pillar of the right tonsil, brought down and out, care being taken to avoid the glandular tissue and base of tongue.



III AND IV.

The knives are now changed; the left inserted into the same incision and brought upward, back of the pillar well into the fossa supra-triangularis and out toward the uvula. The same procedure is now followed with the left tonsil.

When the plica triangularis is present at the base of the tonsil it is cut away with the downward stroke of the knife. In most tonsils,

particularly when the upper portion of the gland is buried deeply in the fossa, the knives are insufficient to completely loosen the tonsil; and it is then seized with the tenaculum, brought out into the throat and the upper portion dissected free with Prince scissors. At this stage the scissors free the tonsil from the posterior pillar as well as the anterior.

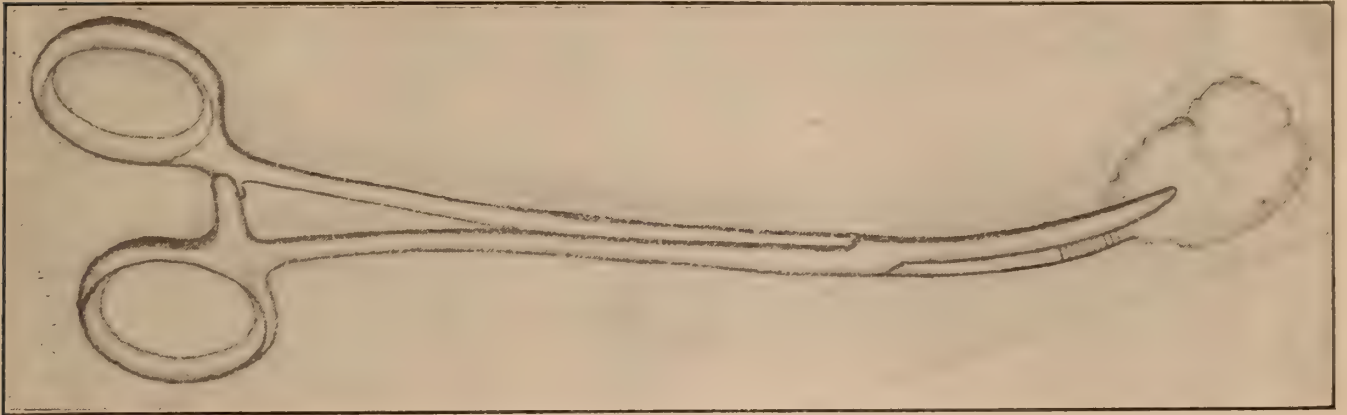


FIG. V.

In deeply submerged tonsils scissor dissection alone is used, the tonsillotome completing the operation.

The packing used is lightly compressed cotton, the ordinary hospital "cotton boll" or sponge.

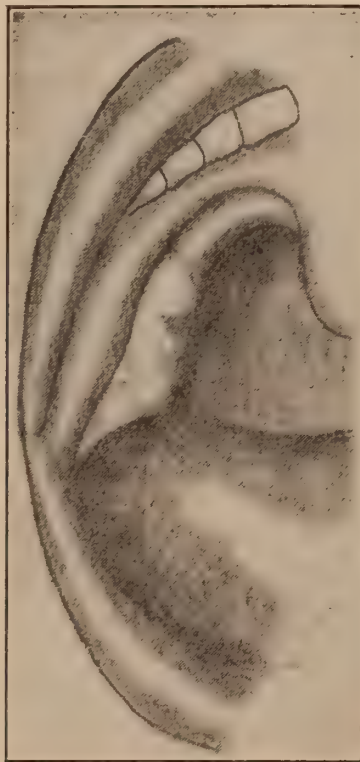


FIG. VI.

One surface is freely dusted with ferropyrine (an iron salt of anti-

pyrine). The plug selected should be slightly larger than the tonsil removed and packed firmly into the fossa with a pair of long blunt forceps. There is just enough tension from the pillars to hold the plug in place. It is now left from ten to twenty-four hours.

In some cases where the plug is a trifle large, the patient experiences some pain and an uncomfortable feeling in the throat; rarely, however, the patient experiences any trouble and the plugs are left a full twenty-four hours. When the packing is removed, the fossa presents a clean appearance with a thin film of pseudomembrane lining it. No blood clot is present.

In eighteen of these cases there was no hæmorrhage whatever and no temperature, the recovery being uneventful.

In three cases one of the plugs became dislodged a few hours after the insertion, but no hæmorrhage resulted.

In three cases one plug was dislodged with hæmorrhage from that fossa but none from the fossa where the pack remained in place.

One of these cases was operated upon at the office and allowed to go to his home in a carriage. This man gives a history of bleeding and had put off having his tonsils removed for several years on that account. He had a very sensitive throat. Considerable nausea developed after operation and during a period of retching one pack was dislodged. There was a copious hæmorrhage from this side before we could reach him. A second pack was inserted and effectually controlled the bleeding.

One case, an unruly boy of twelve years, coughed up both packs before leaving the operating room but no hæmorrhage resulted.

Conclusions :

1. While this procedure of packing is not the ultimate, it shows that packing the tonsillar fossa is practical and causes no injury to the pharyngeal tissue.

2. The fact that hæmorrhage occurred in cases where the pack did not stay in on one side and not from the fossa where the pack remained demonstrates its value.

3. Whether or not these uneventful cases would have reached the same happy termination without pack is a question, but certain it is that in very few cases where one depends upon a clot formation alone does the patient reach convalescence without several hours of oozing, even though the hæmorrhage may not be active.

DISCUSSION.

F. C. SAGE: If I remember rightly, the paper reported eighteen cases of trouble out of twenty-five: it seems to me, that that is a greater per cent. of trouble than I have had in my own experience or heard reported before. I do not see the force of the writer's conclusion that when the packing came out on one side and hæmorrhage occurred and remained on the other side where there was no hæmorrhage, that the hæmorrhage was due to the absence of the packing. Hæmorrhage that I have seen or been troubled with is nearly always on one side only, so that that conclusion is hardly warranted. The author admits that the packing comes out sometimes and he demonstrated to us that it does come out; now I cannot see the slightest use of putting in the fossa a pledget of cotton loosely as he describes. I formerly used the ferric chloride and greatly to my sorrow; I would not like to use it again. It turns the tissues black, filling the fossa with clots without stopping the bleeding. As a matter of routine I would advise the omission of the pledget and iron styptic in ordinary cases but if you do have hæmorrhage then use something more radical than the measures described.

L. E. HETRICK: Packing the site of the wound after tonsillectomy is an entirely new idea to me. I have been giving a preliminary treatment of calcium lactate, ten grains a day for a few days before the operation. I have had no bleeding after any of my tonsil operations. Only last Saturday I removed imbedded tonsils from a woman of thirty-eight, using the finger enucleation. Seven little cotton mops were all that were required to stop the oozing.

E. J. GEORGE: I want to speak of the value of the shot suture in case of hæmorrhage after a tonsil operation: it is quickly applied and very effective. The needle is put through the two pillars of the fauces and they are drawn together over the wound, stopping all bleeding. The suture is secured by a perforated shot. This method has served me in several obstinate cases. Two sutures are usually used, with a gauze or cotton packing between the pillars.

PRESIDENT SHEPARD: Do you mean that you do this always or only in cases of severe hæmorrhage?

DR. GEORGE: Only when bleeding or fear of bleeding occurs; the perforated shot is run up close and pinched to hold the two ends of the suture.

E. D. BROOKS: If there is much bleeding from the fossa a plug of cotton loosely packed in will not stop it; the pressure of the blood will push it out every time. I see no occasion for putting any foreign substance in there at all unless bleeding demands it. Then it should be effective, as the suture spoken of by Dr. George undoubtedly would be.

ALFRED LEWY: The treatment of tonsillar hæmorrhage should begin before the operation and care should be exercised that the pa-

tient and the tissues of the throat are ready for an operation. Especially should the throat be examined to see that there is no acute inflammation there, even of moderate degree. I speak this from one experience that I had. The ear also should be examined for any evidence of congestion. If these precautions were observed a number of operations would be postponed and a number of hæmorrhages avoided. I believe from observation that adrenalin in a solution stronger than one in ten thousand is not advisable because it predisposes to secondary hæmorrhage. I have never had a secondary hæmorrhage myself. I am accustomed to use a snare, drawing the wire through slowly after adjusting it carefully so that the whole of the tonsil is engaged. I have had considerable experience in this myself and also I have had good opportunities of observing the technique of many operators; the belief has been established in my mind that sharp instruments result in hæmorrhage more often than does the slow cutting with the snare.

I. O. DENMAN: I use the snare, as I believe that it is safer than sharp instruments; my records show only one hæmorrhage in two hundred cases. In that case I found that a piece of the tonsil had been left in, and as soon as that piece was removed the hæmorrhage stopped. I am opposed to packing of any kind, unless indeed there is some call for it such as bleeding. Better than packing of any kind is the same treatment as you would apply to a bleeding artery elsewhere. I agree with Dr. Brooks that loose packing will not have any effect in stopping an active hæmorrhage: the suturing of the pillars together as spoken of by Dr. George is the only alternative if you cannot get the artery and tie it, or crush it. By leaving out the packing the patient is saved the annoyance and irritation of having a foreign body in the throat. The point that Dr. Sage made is a good one, the use of sharp instruments injures the pillars and pharyngeal wall and the soreness that follows is more often due to the traumatism of the surrounding parts than to that of the stump. I use no instrument with a cutting edge in tonsillectomy.

GEO. W. MACKENZIE: I was unfortunate in my early experience with tonsillectomy and I thought that I had more than my share of bleeding; after a few experiences, perhaps I was always looking for bleeding and hence found it. Some have reported enormous numbers of this operation without a single hæmorrhage, perhaps that was because they never looked for it but allowed the patient to go without examination. Some time ago there was an interesting symposium upon tonsillar hæmorrhage in the *Journal of the American Medical Association*. The statistics offered showed something like thirty-five or forty cases of fatal bleeding and the conclusion was that all of these fatal cases had bled from open vessels and none of them were lost from hæmophilia or from capillary oozing. One case reported I remember very well; after a neat operation the patient bled for some hours so that a clamp had to be put on. After several hours it was

removed but had to be put on again on account of the hæmorrhage recommencing. It was kept on for five days and still the bleeding recurred. It was finally fatal and the postmortem showed that the blood had come from a small vessel behind the pillar in the recess between it and the tonsil. My own practice is to put a mop on and hold it there several minutes before attempting the second tonsil. Ordinarily now I get very little bleeding. I want to condemn the use of adrenalin on account of the danger of secondary hæmorrhage which is incident to its use. If they are going to bleed at all I want it to happen while I am there and not afterwards. This is an interesting subject and one that we cannot discuss too much.

DR. HETRICK: I attempt to stop all hæmorrhage before the patient is taken from the table. I apply a mop until it comes away only slightly stained pink before I feel safe.

DR. MACKENZIE: Has the essayist ever had the experience of the mop getting into the larynx or being swallowed?

BURTON HASELTINE: I want to congratulate the essayist as being one with me in being jumped on; I shake hands with him and wish him success. He is perhaps a little premature in reporting twenty-five cases; some of us have had a hundred times that number without fatal hæmorrhage. I want to say something in defence of sharp instruments. Sharp instruments are far better than dull ones, the point is that they should be employed only on the right tissues and in the right place. See that what you are going to cut is what you want to cut and then your instruments cannot be too sharp. The point made by Dr. Lewy about the patient being prepared for the operation is a good one. I have never been guilty of operating upon a patient in my office away from their home or the hospital and God being my helper I never will be.

Iodine in Corneal Ulcer.—Dr. G. Canilla treats all cases of ulcers and ulcerations of the cornea with iodine, irrespective of the cause. The method he employs is the following: The eye having been previously anesthetized with a few drops of 4 per cent. solution of cocain, the end of an ordinary wooden applicator is sharpened to a pin's point and a little cotton-wool firmly wound round it. The point is dipped in tincture of iodine and the surface of the ulcer gently touched with it. The conjunctival sac is next thoroly irrigated with distilled water.—*Br. M. J.*

The direct antidote of nicotine, so far as the coronary vessels are concerned, is theobromine.—*N. Y. Med. J.*, Feb. 15th.

Eosinophilia is found in both anaphylaxis and asthma.

Scarlet red applications to sluggish ulcers of *mucous membranes* caused definite epithelial stimulation and rapid healing: conjunctiva, stomach.

SOME OF THE MORE USEFUL REMEDIES IN OCULAR THERAPEUTICS.

CHARLES H. HELFRICH, M. D., O. ET A. CHIR.,

Professor of Ophthalmology, New York Ophthalmic Hospital

OUR President is of the opinion that a series of papers on the therapeutics of the specialties represented by this society would be productive of a helpful discussion.

Possibly we do not often consider to what extent we are dependent upon our internal remedies and how great an advantage they give us over those who do not make use of them. This was emphasized to my mind by the remarks of a former assistant surgeon of the N. Y. Ophthalmic Hospital who located in another city where he became connected with an old school hospital. He said he soon felt the need of his remedies because many cases which in his former experience got well promptly seemed to drag along interminably. Finally in desperation he sent some of the most important ones to his office where he might prescribe internal remedies. He was amply repaid, he said, by their more satisfactory progress.

Following out the suggestion given me, I have arranged some of the most important remedies in alphabetical order, giving a short account of their sphere of usefulness with a few of their special indications. The limits of such a paper would preclude my mentioning all of them so I have selected those which I have found most frequently useful in both hospital and private practice covering a period of a quarter of a century. With these as a basis the members are invited to add their own experiences for the benefit of the common weal.

Aconite is useful in the first stage of those inflammations of the conjunctiva, iris, cornea and sclera, which are characterized by *pain, dryness, heat and burning*, with nocturnal aggravation. If due to exposure to cold dry air it is an additional indication. One of the greatest triumphs in homœopathic ocular therapeutics is its beneficial action in acute inflammations following *injuries, operations and irritants*. In conjunction with the local use of ice it has saved many eyes from destruction.

Arsenicum is a useful remedy in ulcers of the cornea, phlyctenules,

and retinitis albuminurica, occurring in patients who are greatly prostrated, restless and thirsty for small quantities of water. Local indications in inflammatory troubles are *acrid discharges, burning pains and aggravation after midnight.*

Aurum seems to be specially curative in such syphilitic eye diseases, whether hereditary or acquired, as keratitis parenchymatosa, iritis, choroiditis and opacities in the vitreous. A characteristic indication for it is pain around the eye which seems to be deep in the bone and to extend from without inwards aggravated by touch.

Belladonna. The principal sphere of this remedy is in hyperemia and inflammation of the optic nerve and retina, particularly in patients with increased blood pressure. The vessels are enlarged and tortuous, there are hæmorrhages in the retina and obscured outlines of the disc. Throbbing headache and photophobia are features.

Bryonia is the remedy for rheumatic affections, particularly iritis, characterized by sharp shooting pains in the eye, especially on moving it, with relief from pressure.

Cannabis sativa. In parenchymatous keratitis when the *cornea is covered with blood vessels* and there are profuse lacrimation and intense photophobia. It acts best in low potencies.

Causticum. In peripheral paralysis of the ocular muscles, particularly if caused by exposure to cold. It has been found useful in postdiphtheritic paralysis, but in my experience never in syphilitic cases. Its action in retarding the progress of senile cataract is well known.

Cinnabaris is a dependable remedy in iritis or kerato-iritis if accompanied by its characteristic pain in the supraorbital ridge beginning at its inner extremity and extending outwardly, with nocturnal aggravation.

Conium is occasionally useful in superficial corneal ulcers when the *photophobia is intense and out of all proportion* to the very slight redness which is present. This hyperesthesia is its keynote.

Euphrasia has its chief indication in profuse discharge which is thick and excoriating, causing the lids and cheek to become sore. Beside its use in inflammatory conditions it is occasionally useful in paralysis of the muscles.

Gelsemium has a marked influence on the uveal tract and is often beneficial in cases of iritis, cyclitis and choroiditis, occurring separately or combined. It corresponds to those cases of cyclitis which were formerly classed as "serous iritis" and "descemetitis" with punctate

opacities on the posterior surface of the cornea, moderately dilated pupil and an inclination to increased tension. The ball itself is only slightly reddened. Disseminate choroiditis with opacities in the vitreous, detachment of the retina and glaucoma are also included in its sphere of usefulness.

Graphites is indicated in inflammation of the lids, conjunctiva and cornea occurring in scrofulous subjects with an eczematous eruption on the skin which is prone to crack and bleed easily. A characteristic symptom is the *intense photophobia from day-light but not from artificial light*.

Hepar. Probably no other remedy covers so wide a range or is indicated so often as hepar in ocular therapeutics. Abscess of the lacrimal sac, orbital cellulitis, abscess of the lid, styes, purulent conjunctivitis, ulcers and abscesses of the cornea, especially if accompanied by hypopion, iridocyclitis, postoperative infections, panophthalmitis, all come within its sphere if its characteristics of sensitiveness to touch, throbbing pains relief from warmth and aggravation from cold are present.

Ipecac. The keynote of this remedy in phlyctenules and ulcers of the cornea is *intense photophobia with considerable redness*. This is in contrast to conium which has only slight redness.

Kali bichr. Chronic indolent inflammations and ulcerations, especially if the secretions are stringy in character and there is very little redness and no photophobia.

Kali iodatum. Syphilitic affections of the eye, orbit and muscles; given in low potencies or material doses.

Lachesis and **Crotalus** are the two most useful remedies in absorbing intraocular hæmorrhages; whereas

Ledum is more especially indicated in ecchymosis of the lids and conjunctiva.

Lycopodium has as a characteristic symptom night-blindness, but I have never seen any results from it in retinitis pigmentosa. Possibly it might be beneficial in idiopathic nyctalopia from malnutrition of the retina.

Mercurius. The mercurials as a class are useful in conjunctivitis with thin acrid discharges and marked photophobia, especially when exposed to artificial light. The general aggravations are from heat and at night. This is the opposite of graphites in regard to the photophobia. Mercury is beyond doubt the principal remedy for plastic iritis, especially when due to syphilis, but is useful in all varieties. The pains are bor-

ing in character, chiefly around the eye and in the forehead and temples and worse at night.

Nux vomica. Its special sphere is in acute and chronic retrobulbar neuritis and atrophy of the optic nerve. The ill effects of stimulants and tobacco are best controlled by this remedy. A prominent characteristic is its morning aggravation.

Phosphorus is occasionally of use in intraocular diseases, especially if erythropsia is present. Some cases of retinitis albuminurica demand it when the kidney condition indicates it.

Phytolacca has been of service in orbital cellulitis where the swollen lids were hard and unyielding to the touch. A case of iridocyclitis following a discission for cataract is reported cured in which the lids were swollen and hard.

Pulsatilla. Conjunctival and corneal affections accompanied by profuse *bland* discharge with amelioration in the open air. Its use in stytes is well known. It has been useful in acute inflammation of the lacrimal sac, especially in children.

Rhus tox. shares with aconite and hepar the distinction of being the most important remedies in ocular therapeutics. Note its symptoms: The lids are red, swollen and edematous, particularly the upper, and spasmodically closed, with a profuse gush of tears when they are opened. Marked chemosis of the conjunctiva. What a perfect picture of orbital cellulitis, panophthalmitis, iritis and iridocyclitis in conjunction with their other symptoms; it is a sovereign remedy for these conditions. No other remedy compares with it in postoperative infections but it must be given in the low potencies.

As a consultant in a case of orbital cellulitis in a child where, despite a free opening and good drainage, septic meningitis had set in I advised rhus but predicted a fatal termination to the family. A miraculous change took place; by morning the child had recovered consciousness, the temperature had markedly declined, the opisthotonos and convulsions had disappeared and the case went on to speedy recovery.

Silicea is the most frequently indicated remedy in caries of the orbit. Like hepar it is relieved by warmth and aggravated by cold. It is often the remedy for sloughing ulcers of the cornea.

Sulphur is indicated in a variety of conditions, particularly of a chronic nature, if the pains are sharp and stinging in character and aggravated in the early morning. It is useful for hospital patients who resent being washed.

Terebinth is often of service in iritis which is characterized by *excruciating pain*. The pain is both in and around the eye and extends back into the head, aggravated at night. Scanty and high colored urine with pains in the back are special indications.

DISCUSSION.

CHAS. H. HUBBARD: Remedies selected according to the law of similars are so clearly indicated and as unmistakably curative in ocular diseases as in any other disordered portion of the human economy. Dr. Helfrich has carefully given the indications for some of the best known remedies that time and experience have established as trustworthy agents.

Notwithstanding the fact that any remedy which is indicated by the totality of the symptoms may be confidently expected to effect a cure in cases curable by internal treatment, still the value of therapeutic indications from sources of authority can hardly be overestimated. The busy practitioner seldom has time or inclination to hunt through our materia medica—much less attempt to memorize it—to find the right remedy in a given case. And it is the remedy which is proven by actual experience and by recognized authority to be a reliable one that commands confidence. However, coupled with such special indications—one should have in mind a general picture of the drug pathogenesis in order to secure ideal results. These remarks may seem to be too academic for this society, but the fact will not down that not infrequently local or mechanical treatment wholly supplants the homœopathic remedy. It behooves us to stand fast by our exclusive armamentarium which distinguishes our school of medicine and demonstrates its superiority.

That trinity of remedies to which Dr. Helfrich gives first place in ocular therapeutics, viz.: aconite, hepar and rhus tox., after careful consideration I am bound to agree with. A few of the remedies in the doctor's list I seldom use, while others not enumerated are very frequently employed. Aurum met., even when it seems most clearly indicated, I find disappointing.

Agaricus is so often indicated and is so promptly curative that it should stand among our leading remedies. In spasmodic conditions of the ocular muscles, even when reflex, or where *nystagmus* is pronounced no remedy can usurp its place, especially when associated with supraorbital or trigeminal neuralgia.

Belladonna may be displaced by duboisin sulphate where there is a *chronic* hyperemia of the fundus, which will give better results.

Bryonia is of great value in diseases of the uveal tract. Hence in ciliary neuralgia and in glaucoma it is often curative. The keynote is soreness.

Prunus spinosa is not infrequently the remedy in ciliary neuralgia.

Its characteristic symptoms are, sudden, sharp, crushing, agonizing pains, usually in the right eye or the supraorbital region, relieved by rest. It is not a remedy for superficial conditions, but when the deep ocular structures are involved, as in choroiditis. It needs to be differentiated from *spigelia*, so often indicated in ciliary neuralgia. The *spigelia* pains are generally sharp, stabbing, burning, intense, usually on the left side, aggravated at night, by motion, and stormy weather; they may be deep in the eye or may radiate from the forehead, temples or cervical region. Ptosis is often present. Mentally the patient is fearful, anxious, foreboding.

Mezereum and *paris quadrifolia* are to be compared with the above remedies in ciliary neuralgia.

Sulphur. No list of therapeutic indications would be complete that failed to include this good friend. It is always to be thought of in pustular and ulcerative conditions of the cornea. Its pains are sharp and sticking. Burning, dryness and smarting, with sensation of sand in the eye are pronounced characteristics.

F. C. SAGE: No papers are more useful to us in practical work than those upon this subject and their discussion. As for myself I prefer aurum muriaticum to aurum metallicum. One discussor said that he had not found much use for it, but I regard aurum as one of the most useful remedies we have in parenchymatous keratitis; more often indicated than any of the mercuries and especially well indicated after their abuse. I also have found aurum muriaticum very useful in the nervous side of the case—the extremely nervous condition that so frequently accompanies it. I have found only a few remedies appropriate in this condition and aurum is prominent among them. Where the protrusion of the eyeball and the rapid palpitation of the heart are the prominent symptoms I have found *spigelia* control the troublesome symptoms better than any other remedy. This should not be used too low as it acts better here in a potency. The 3x will aggravate almost every time. The 4th or 6th are my preference.

E. D. BROOKS: Do you refer to the decimal or the centesimal scale?

DR. SAGE: Decimal.

PRESIDENT SHEPARD: I want to speak a word in praise of aurum muriaticum and of *cannabis sativa*, the latter especially for cases in which there is marked vascularity. Lately I had three cases that came into the clinic while the students were there and I called their attention to this indication for *cannabis sativa*.

These three cases all called for *cannabis*; they were apparently of syphilitic origin but I cannot say positively so. Even if there is marked signs of hereditary syphilis I did not give *cannabis* on this picture at all but on the picture of intense vascularity. I had the students come down a week later to see the same cases and they marvelled at the change.

GEO. A. SUFFA: Did you use atropin?

PRESIDENT SHEPARD: I use that in all cases. One of these had been under treatment for three weeks with atropin and other remedies before cannabis was used and the further improvement was marked.

DR. SUFFA: Has anyone here had any experience with *calcareo fluorica* in necrotic conditions?

PRESIDENT SHEPARD: I have had one such case in the last year, but did not consider it a proof of the efficacy of that remedy because other treatment was used at the same time. I have had several cases of necrosis of the floor of the external auditory canal in which *calcareo* seemed to act with benefit, but I always scrape the bone and apply lactic acid as well as give *calcareo fluorica*.

Dermatitis from Formaldehyde.—Formaldehyde may produce a severe chemical dermatitis in a large number of people who have an idiosyncrasy against it. Dr. Wm. E. Morgan has suffered for ten months from an extremely severe dermatitis as the result of washing his hands and arms in alcohol denatured with formaldehyde, and finds that the mere presence of the vapor in a room where formaldehyde has been used as a fumigant will bring on a fresh attack. For treatment he recommends: Use only soaps made of vegetable oils and avoid ointments or emollients containing animal fats. Apply to the affected parts two or three times daily an ointment made up of zinc oxid, 1 part; starch, 2 parts; petrolatum, 8 parts. During the vesicular and acute stage this should be applied without friction; but after the epithelium becomes dry and the derma somewhat thickened and scaly, the ointment can be rubbed in and the zinc reduced somewhat. Avoid all powders except sterilized starch, and then during the vesicular stage only. Rubber gloves cannot be worn for more than three to five minutes without producing marked irritation by reason of the confined perspiration. Wear a cotton protecting sleeve or glove, or both, night and day until thoroly healed.—*J. A. M. A.*, vol. lx no. 8.

HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

TWO CASES OF HAY FEVER.

PHILIP RICE, M. D.,

San Francisco, Cal.

MISS W., age 25; teacher. In temperament has the nervous element dominant. For a number of years has been suffering almost continuously from hayfever, the typical seasonal aggravations being quite absent. There may have been a slight aggravation of the symptoms during the rose season in the spring and the pollen season in the early autumn, yet some of her severest attacks were experienced in the winter, which in California means the rainy season.

The symptoms in brief were the following: Sensitive to cold; sudden stuffiness in the head and nose, with violent attacks of sneezing; profuse hot watery coryza at first, which soon became thicker, somewhat acrid and irritating, but which remained clear as albumen; the discharge often had a distinctly salty taste; general aggravation from morning until towards evening; a marked tendency to dryness of skin and mucous membranes; considerable thirst.

May 14, 1910, gave *natrum muriaticum* 12x.

June 3, reports having but one slight attack since last visit. During the past day lachrimation with considerable irritation of the conjunctiva; a prickling sensation. *R.* *Allium cepa* 6x.

July 3. Symptoms much as they were at the first visit, tho not so severe. *R.* *Natrum mur.* 12x to be taken occasionally.

Aug. 3. Steady improvement. The same remedy was continued at rare intervals.

Oct 5. Has been entirely free from all symptoms for over three months. At present writing, which is nearly three years after the remedy was given, the patient reports no return of the trouble in even the slightest form.

Miss L., age 17. For the past three years during all seasons frequent attacks of hayfever. Sudden and violent attacks of sneezing; profuse watery coryza, which is at times mildly acrid; profuse lachrimation, and prickling sensation in the eyes; redness of the conjunctiva; puffiness of the lids; aggravation in the warm room yet sensitive to the cold; aggravation in the cold wet weather, and in a warm room,

especially if there are flowers in the room; general health good. *Rx.*
On Oct. 28, 1911, *cepa* 6x.

Nov. 13. Distinct improvement. *Rx.* Placebo.

Nov. 25. Reports entire relief of hayfever symptoms, but has suffered intensely from chilblains for the past week. *Rx.* *Agaricus mus.* 12x.

Dec. 19. Entire relief of both hayfever and chilblains. *Rx.* Placebo.

Jan. 27, 1912. Slight return of the original symptoms. *Rx.* *Cepa* 6x.

April 5. Has been well until the past few days. On return of the symptoms took some of the last remedy but it did no good. *Rx.* *Natrum* 12x.

May 4. No improvement followed the last prescription. Aggravation of all symptoms in the morning and evening, and change of temperature, *i. e.*, going from cold to a warm or from a warm to a cold room. The coryza is irritating; itching and tingling high up in the nose. *Rx.* *Sabadilla* 6x.

June 8. For a week or so after the last remedy was given there seemed to be some improvement, but now the symptoms are as bad as ever. *Rx.* *Psorinum* 5c.

June 13. No relief. No remedy was given as she was going to the mountains and a rest was thought advisable.

Sept. 7. While in the mountains was entirely free from trouble, but immediately upon her return to the city *and the sea air* all the old symptoms returned. *Rx.* *Dulcamara* 6x. This was followed by immediate relief of every symptom, and during the past year there has been no return.

CURRENT LITERATURE.

DEPARTMENT EDITORS.

WM. McLEAN, M. D.,
New York.

FRANK O. NAGLE, M. D.,
Philadelphia, Pa.

NORTH AMERICAN JOURNAL OF HOMŒOPATHY. April

*1. Labyrinthitis. Augustus Angell.

*2. Vaccines in Practice. W. H. Watters.

*1. The function of the vestibular apparatus, according to Brewer, is to inform us of the motions of the head, and consequently the position of the body relative to the line of gravity, thus enabling us to preserve equilibrium. Politzer classifies labyrinthitis as: acute hyperæmia, anæmia, and hæmorrhages. The homœopathic remedy is the most reliable treatment; "wonderful results can be accomplished" when this is well selected. The writer has used with very satisfactory results: China, above 1x, not frequently repeated; bryonia 30x improved one case practically cured with bryonia m; glonoin, pulsatilla, sulphur, gelsemium, sepia.

*2. 8 or 10 cases of tuberculosis of the cornea have been treated with tuberculin; some at first were thought almost hopeless, others had been steadily progressing for weeks or months. All but one were benefited, some remarkably so. The failure might have been benefited if the dose had been reduced one-half or more, because the usual dose, repeated two or three times, invariably aggravated so that the patient refused further treatment.

Nov., 1911. Boy, aged 5. Of months standing. Ulcerated cornea, profuse pus, practically blind. Tuberculin and staphylococcus vaccines used in alternation and within a few days of the first treatment improvement began and continued till, in 5 or 6 weeks the acute symptoms were practically gone leaving a scar which was growing progressively less. Tuberculin at about a week intervals till April, then stopped. About 6 weeks later another ulcer; this was cut short with renewed tuberculin; since then this has been administered about once in 2 weeks. The scar is growing thinner, the pupil can now be readily seen through it and the general health is excellent.

KLINISCHE MONATSBLÄTTER FÜR AUGENHEILKUNDE.**Mai.**

1. Ueber Beteiligung der Tränenrohrchen an der Tuberculose des Tränensaches. Dr. W. Wittish.
2. Zur Malignität der gefarbten Tumoren des Auges. Dr. C. Von Hoor.
3. Ein Peritheliom des Lides. Dr. J. Eicke.
4. Blaue Sklera und Knochenbrüchigkeit. Prof. Peters.
- *5. Zur Aetiologie der idiopathischen Hemeralopie. Dr. S. Ishihara.
6. Kürzer Bericht ueber das Ergebnis einer Umfrage—das gehaufte Vorkommen von Hemeralopie mit Xerose im Frühjahr 1912. Prof. Von Hippel.
7. Ueber Beziehungen der rheumatischen Augenkrankungen zur sekundären Tuberkulose. Dr. R. Wirtz.
8. Ueber die Kombination von Frühjahrskatarrh mit Trachom. Dr. H. Bayer.
9. Zur Pathologischen anatomie der Netzhaut nach der Extirpation eines Sehnerven Tumors. Docent Koyanagi.
10. Ueber einen Fall von Myxosarkom des Sehnerven. Dr. M. Segi.
11. Extraction von Kupfersplintern aus dem Glaskörperaum. Dr. J. Van der Hoeve.
- *12. Ein Fall von Gumma der Opticus Papille. Dr. W. Mylius.
13. Fünfmal recidiviertes Papillom der Binde und Hornhut, geheilt durch Mesothorium bestrahlung. Dr. B. Agricola.
14. Ueber den Einfluss des Diphtherieheilserums auf Verlauf von infektiösen Augenerkrankungen. Dr. E. Jansen.
15. Die Operation des Altersstares mit der Lanze. Prof. Best.
16. Ein neues reflexloses Optholmoskop. Dr. Baum.
- *5. On the continent, writes W. G. Sym, of Edinburgh, the word hemeralopia is used to designate night blindness—ignoring the significance of the syllable *al* from the Greek *alaos*, blind.
- *12. Gumma of the papilla nervi optici belongs to the most rare diseases of the eye. Until the present article only three cases were reported in the literature—by Scheidemann, Gutman and Verhoeff; of these cases the last was examined histologically with the diagnosis syphiloma of the optic nerve. Everywhere in the optic nerve could spirochetæ be found

Dr. W. Mylius reports a case of gumma of the optic nerve in a woman age 25, who had a history of having been twice infected with lues. She came to his clinic at Gorlitz, Germany, Nov. 1st, 1911.

The papilla was not to be seen; a thick whitish tumor could be seen covered with vessels.

The size of the tumor was two papilla widths in the horizontal direction, and three papilla widths vertically.

The prominence of the tumor measured 6 diopters. Vision was reduced to counting fingers at half a meter. Visual field in periphery was normal.

Under antiluetic treatment the tumor disappeared concentrically. Within a month the patient had 5/10 vision which gradually improved until normal vision was reached and maintained.

The above terminal result of a gumma of the papilla nervi optici is exceptional, since the ophthalmoscopic picture presented a poor prognosis because of transformation of the tumor into connective tissue with consecutive atrophy. Hence the favorable course of this case confirms the statement made by Scheidermann that gumma of the optic nerve has a predilection for the *papilla*.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, June 21st.

*7. Conservative treatment of some aural and nasal conditions with hot air and iodoform. Edward J. Brown.

*7. Case 1.—Aged 72. Deaf (left) and nasal sinus disease. An obstinate postoperative sinus from the attic to a point high up in the enlarged external canal, with granulations in the tympanum and considerable purulent discharge. At times shooting pains around the ear and side of the head. Air hot enough to vaporize iodoform in a few days closed the sinus; the treatments made her dizzy, but eventually removed the granulations stopped the discharge and (going through the Eustachian tube) markedly improved the nasal conditions.

Case 2.—Occasional right otorrhœa, foul; small perforation of mt. Ear cleansed; prolonged application of hot air and nascent iodine, following negative pressure to the nares; in two days ear dry, clean, and has remained so. Hearing and nasal conditions practically cured (?).

“A considerable number of sinus cases have been treated with very satisfactory results.” A single application has relieved sore throat and earache from acute pharyngitis.

The treatment seems to destroy the less resistant bacteria, dry and

shrink the tissues, with secondary increase of cellular activity and removal of the inflammatory products which interfere with drainage.

LONG ISLAND MEDICAL JOURNAL. July

***2. Refractive errors in children. David T. Bishop.**

Amblyopia ex anopsia in a squinting child 8 or 10 years old is usually beyond relief. Fortunately it is not so common as it used to be for the family physician to cause this condition by advising that a little child will "outgrow" strabismus. It is practically impossible to determine the visual acuity of a baby of 3 or 4 years or younger, except by skiascopy, or the ophthalmometer under cycloplegia—this is fairly accurate. Refraction should be corrected as soon as diagnosed; it is also necessary to develop the fusion center if that is not normal. Children as young as 2 or 3 years, and even younger, wear glasses with safety and comfort; it is very rare that children break their glasses during play. Myopic children are encountered much less frequently than hyperopic or astigmatic.

NEW YORK STATE JOURNAL OF MEDICINE. July.

***6. Some of the points of contact between ophthalmology and general medicine. F. W. Marlow.**

***7. Macular inflammation. J. J. Brien.**

***6.** One of the cases cited shows that a tumor may exist and cause central scotoma followed by blindness without setting up double optic neuritis, such a symptom having greater localizing value than the optic neuritis. Blindness will be an earlier symptom when the optic nerve is pressed upon than when neuritis occurs from intracranial pressure, the latter condition sometimes existing for years without causing blindness. Some cases of cyclic vomiting are, without much doubt, purely functional disturbances caused by eyestrain, and also long lasting vomiting that resembles cerebral vomiting and suggests brain tumor.

***7.** This title would be more unassailable if it were "macular lesions" because the writer gives no foundation for the diagnosis of "inflammation" beyond the persistence of the suddenly appearing red or brownish red spot which encroached upon the macula, accompanied by blurring of vision. In one case this spot disappeared in a couple of weeks, another in six months, the third was the smallest sarcoma on record. The vessels and fundus were "negative."

HAHNEMANNIAN MONTHLY, July.

3. Therapeutics of the nose. J. B. Garrison.
5. The anatomical relation of the sphenoid and posterior ethmoid cells to the optic nerve. Lloyd H. Clark.
6. Hay fever. Wm. M. Hillegas.

MEDICAL REVIEW OF REVIEWS. July.

*I. Double frontal sinusitis, serous meningitis, operation; recovery. Edward J. Brown.

*I. A Jewish tailor, age 28; Dec. 14, 1910, suffering 5 days with severe pain in left eye. For years a greenish discharge from both nares. Bone over left frontal sinus tender to percussion. Prompt relief for 6 days from removing anterior three-fourths of left middle turbinate and an infundibular polyp. Then pain and tenderness recurred and anterior ethmoid cells were broken down and anterior wall of nasofrontal canal removed enough to make a free opening into the sinus. Thick pus washed out; next day discharge free, no pain nor tenderness, for six days, then probed and washed; no recurrence. Jan. 23d, rest of the middle turbinal removed and posterior ethmoid cells curetted. Next day severe pains over the frontal area, vomiting and temperature 101.6° . On 25th, 102.6° ; efforts to probe and wash out the sinus, small success; large and repeated doses of sodium sulphate: at 6 P. M. 100° , pulse 64. Next day vomited much, temperature 99, pulse 56; discharge free left, slight right. June 27th. Bad night: pain worse; 6 P. M. 100.4° , stiff neck and suspicion of positive Kernig. Operation: Free incision through unshaved brows, anterior wall removed: thick pus under pressure in both sinuses, the mucosa disintegrated and almost wholly loosened from the bone. Central septum intact, the only one; frontonasal canals and right ethmoid sinus curetted; sinuses filled with 33 per cent. iodoform paste and the incision closed. Next day pain still in the back but better in the head. That night wild delirium set in and continued till Feb. 6th although Feb. 3d slight leaking of purulent matter through one point of the wound; opened with probe, washed out broken down paste and other contents with iodine tincture one dram to a pint of normal saline. 11th, washed out with alcohol and filled with 33 per cent. bismuth subnitrate in vaseline. Improvement steady but slow; left hospital Feb. 20th. March 23d, cavity again injected with the bismuth paste and a small silver nail inserted to maintain patency for a possible injection; removed April 17th.

January, 1913: has been practically free from headache and with but slight nasal discharge; there is hardly any deformity, practically no sinking; palpation suggests an actual regeneration of anterior bony wall.

MONTHLY CYCLOPEDIA, July.

2. Treatment of chronic suppuration of the antrum of Highmore (with a new instrument, a double curved rasp). E. B. Gleason.

Scarlet Red in Ophthalmic and Aural Work.—The first eye cases which J. Allan submitted to treatment with scarlet red were cases of *corneal abrasions* of traumatic origin. The application of a scarlet red ointment was found to be serviceable, healing quickly taking place. In uncomplicated cases, in which the damage has not been excessive, one application of the ointment will probably suffice, and in twenty-four to forty-eight hours the cornea should be healed. When the patient delays going to a medical man until some days after the injury, a sloughing condition is frequently present, and there may be actual *ulceration*. The scarlet red ointment here again may be prescribed with benefit. In other eye injuries, such as *wounds* of the cornea, *burns* of the cornea, *abrasions* and *wounds* of the *conjunctiva*, etc., the medicament is also indicated.

The author has seen *corneal ulcer* due to disease which had resisted the usual remedies heal after scarlet red ointment had been applied.

A widespread rodent ulcer, in the radical removal of which there was great loss of skin tissue leaving a large granulating surface, the application of scarlet red ointment materially lessened the area uncovered by skin.

In *granulating postaural wounds* in acute mastoid disease, a scarlet red dressing has afforded good results. The ointment spread on gauze or lint is placed over the edges of the wound.

In eye cases one per cent. scarlet red in petrolatum, or petrolatum and lanolin equal parts, freshly prepared for each case, a minute portion is placed on the conjunctival surface of the everted lower lid; then a pad is applied to the eye and secured with a bandage. This is repeated once daily or every other day. The use of atropin or other remedies must be carried out if indicated; the scarlet red is an accessory treatment. Allan has noted a little irritation in a few cases, evidenced either by a little localized erythema or by slight lacrimation, but none of the patients made any complaint of pain or marked discomfort. For the dressing of granulating surfaces a stronger ointment, 2 to 4 per cent., may be used.—*Therap. Gaz.*, Jan., 1913.

ABSTRACTS.

Treatment of Arteriosclerosis.—1. The chief point to bear in mind is that a person with arteriosclerosis has a smaller working capacity than one with good elastic arteries. If one finds that the sclerotic process involves certain organs more than others, one must particularly insist on rest for them.

2. The question of diet is a practical one, but hard and fast rules do more harm than good. The doctrine that meat favors the development of arteriosclerosis and that the patient can be benefited by forbidding meat, is without foundation. Above all, diet should be so regulated as to avoid all digestive disturbances. Regularity of the bowels is absolutely essential. Any digestive disturbance, whether gastric or intestinal, is likely to force the diaphragm upward, cause irritation of the heart and increase the blood-pressure, and this must be avoided. The peculiarities of each individual case must be carefully studied in order to arrive at a suitable *régime*. All beverages which irritate the heart and blood-vessels and thus bring about marked fluctuations in blood-pressure must be excluded. The patient should be warned not to take too much fluid. About one and one-half liters—including everything in the way of fluid that is ingested—is quite enough. The more fluids one allows, the greater the strain on the arteries. By a judicious restriction of fluids one often sees an excessive blood-pressure reduced by 20 to 40 millimeters and remaining permanently low.

3. Stimulation of the peripheral circulation is best fulfilled by means of systematic hydrotherapy, always avoiding such procedures as are followed by rapid changes in the blood-pressure.

4. The iodides often give excellent results in ocular affections dependent upon arteriosclerosis of the retinal artery. In all other cases of arteriosclerosis the iodides often do harm. Quite often it brings about destruction and absorption of the thyroid gland, with the development of acute hyperthyroidism, severe cardiac irritation, and sometimes glycosuria. Later the symptoms of myxedema develop.—von Norden, *Postgrad.* May.

BOOK REVIEWS.

LABYRINTHINE PAPERS. By GEORGE W. MACKENZIE, M. D., Philadelphia. Cloth, $9\frac{5}{8} \times 6\frac{5}{8} \times \frac{5}{8}$ ", 222 pages, 25 illustrations, \$2.00; sent prepaid on receipt of the price. Address orders to Achey & Gorrecht, Lancaster, Penn. 1913.

We welcome this valuable monograph by our brilliant friend Mackenzie. These fifteen papers now republished in book form cover the whole field, including vertigo. The initial one, "Diagnosis and Treatment of Labyrinth Suppuration," in this JOURNAL, September, 1908, was "the first paper to appear in the medical literature of this country—in fact, in the English language—upon the recent advances in the knowledge and treatment of labyrinthine disease achieved in Vienna by Alexander, Neumann and Barany." The first six chapters—papers—treat of Labyrinth Suppuration, three consider its differential diagnosis, four are devoted to Nystagmus (giving a definition superior to that of the dictionaries), one to Vertigo and the last two to Fistula. The author's clear exposition, in which he freely uses tables and diagrams, impresses one with his mastery of the subject.

As Prof. G. Alexander writes in his "Vorwort," the book will be welcome to the otologist, the surgeon, neurologist, pediatricist and internist.

DISEASES AND INJURIES OF THE EYE. By WILLIAM GEORGE SYM, M. D., F. R. C. S. E., Ophthalmic Surgeon, Edinburgh Royal Infirmary; Lecturer on Diseases of the Eye, University of Edinburgh. Cloth, $7\frac{1}{2} \times 5 \times 1\frac{1}{4}$ ", 493 pages, 25 full page illustrations, 16 of them in color, 88 figures in the text, and four pages of test-type at the end of the volume. \$2.50. New York. The Macmillan Co. 1913.

One of the Edinburgh Medical Series, Dr. John D. Comrie, General Editor. The color plates are much better than usual, but the chapter on refraction falls below that in American text-books. Dr. Sym is an excellent clinical teacher, but he confuses heterophoria and heterotropia and in the chapter Eye Symptoms of Other Parts makes no mention of the nose and its accessory sinuses as a cause of eye trouble nor of the labyrinth as one of the causes of nystagmus. He thinks that argyrol has but very little therapeutic value. Holding the refractory child's head between one's knees for ocular examination and treatment he considers "may do in hospital practice, but is not much to be commended." In our experience this procedure is the best thing to do; never have mothers taken exception to our doing it but, on the contrary, they have learned and adopted the practice readily. Dr. Sym's directions for ascertaining the causative micro-organism in conjunctivitis are radically ineffective; he lists the pathogenic organism usually involved as Gram positive and "staining negative," but does not intimate what the "negative" or "positive" staining consists in. Although our author adheres to the term astigmatism his captions are "astigmatism (or astigmia)."

We do not find any allusion to the relative distribution of the retinal rods and cones when discussing light differences, night-blindness and day-blindness, but he makes note of the fact that "in this country Nyctalopia is employed to indicate night-blindness and Hemeralopia the exact opposite, or day-blindness; but on the Continent the terms are exactly reversed, Hemeralopia indicating night-blindness and Nyctalopia day-blindness. The sense in which these terms are employed varies according to the differing views as to the derivation of the terms (if no inferior motive). It is best in these circumstances to discard both terms and stick to Anglo-Saxon phrases which are beyond controversy." We hold that it was his duty to educate his pupils, in his text-book, as to the correct use of these terms; the syllable *al* is from the Greek *alaos*, blind. Those who mean day-blindness when they say or write nyctalopia have no valid reason for such perversion.

HOMŒOPATHY IN MEDICINE AND SURGERY. By EDMUND CARLETON, M. D. Cloth, 9 x 6 x 1", 311 pages, illustrated with 18 full page half-tones and one colored plate. \$2.00, net. Postage, 15 cents. Philadelphia. Boericke & Tafel. 1913.

This posthumous work is a clinical exposition of the author's forty-two years in practice, and is well worth studying. It emphasizes that each case should be individualized and the patient, not the disease, prescribed for. As his son, Dr. Spencer Carleton, says in the preface: "We can learn theory, materia medica and pathology from the books and colleges. The clinic gives us diagnosis, surgery and familiarity with disease and its cause. It should give us also the practical knowledge of therapy. Does it? Candor would compel us to reply, No. To fulfill this gap is the purpose of this book."

The reviewer thinks the above rather pessimistic and is glad to believe that in our best homœopathic colleges to-day there is a sincere effort to afford practical teaching of homœopathic therapy—of course with still much room for improvement. Two cases of cataract are detailed: the first, immature cataract of both eyes was checked then improved to "read ordinary print and manuscript" with causticum; the other, "cataract (in the milky stage)" according to the oculist, who said that nothing could be done but wait five or six years then operate. Bryonia and rhus were given as indicated and five years later the oculist pronounced the eyes "no worse." Phosphorus was then given, an occasional dose, and about eight or nine years later the oculist frankly admitted the restoration of sight.

EAT-DRINK-AND-LIVE-LONG. Don't be a faddist. Common Sense Suggestions for Ordinary Diet and Hygiene. By E. O. RICHBERG, M. D., Lecturer on Diet and Hygiene, Professor of Embryology and Physiology, Hering Medical College, Chicago. Cloth, 6 x 4 x 1/4", 74 pages.

The reviewer has so many criticisms, that he cannot spare space enough; in brief, he does not commend this book.

MEDICAL UNION NUMBER SIX. By WILLIAM HARVEY KING, author of *My Smoking Room Companion*. Cloth, $7\frac{1}{4} \times 4\frac{1}{2} \times \frac{1}{2}$ ", 60 pages. 50 cents. Copyright, 1904, by The Monograph Press. On sale by Boericke & Tafel, Philadelphia.

This little satire was apparently directed at the governing politicians of the A. M. A. and such others as show a tendency toward unionizing the medical profession.

THE INTERPRETATION OF DREAMS. By DR. SIGMUND FREUD, LL. D. Authorized translation of third edition, with introduction, by A. A. BRILL, Ph. B., M. D., Chief of the Neurological Department, Bronx Hospital and Dispensary: Clinical Assistant in Neurology and Psychiatry, Columbia University.

The author, in his preface to the second edition, feels no gratitude to his colleagues in psychiatry who "apparently failed to observe that in this field could be found all kinds of things which would inevitably lead to a thorough transformation of our psychological theories." He feels "indebted to that wider circle of intelligent seekers after truth whose co-operation has procured for me the invitation to take up anew, after nine years, the difficult and in so many respects fundamental work." The need for a third edition appeared after little more than a year. From his own experience and that of others Professor Freud has "learned to attach a greater value to the extent and significance of symbolism in dreams (or rather in the unconscious thinking)."

The reviewer lays no claim to be a psychologist and is therefore not competent to criticise our author yet, as "an intelligent seeker after truth," he confesses disappointment in this book. His predominant impression is of a too great straining at inferences and deductions, particularly in symbolism, which seem too far fetched to command the respect of the scientifically trained mind.

"Nothing ever was achieved without enthusiasm," but Freud and his disciples view everything through the tinted glasses of the over-enthusiastic specialist.

The reader should not forget that this is an effort to analyse complicated forms of psychoneuroses, considering the dream to be the first link in a chain of abnormal psychic structures whose other links are the hysterical phobia, the obsession and the delusion. But he will continually find throughout this book the assumption or inference that dreams in general are being discussed. Professor Freud has based his studies largely upon his own dreams; are we to consider him a psychoneurotic and on the way to obsessions and delusions?

The reviewer does not concede that the sexual appetite is the greatest force in man and woman. He believes that the probing into sexuality that seems practiced by the Freudian school is more to be blamed than praised. The book does not convince one that sexuality is so widely underlying a cause as is claimed by the author.

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EDITORIAL.

THE JULY MEETING IN CHICAGO.

AS was to be expected, this year's meeting of the American Homœopathic Ophthalmological, Otological and Laryngological Society was a success; the papers, fewer than for many years, were more generally discussed, those upon lip-reading were notable—holding the interest of a large professional and lay audience—and the attendance was decidedly larger than it would have been in Denver.

Discussion revealed the prevalent desire to uphold homœopathy by meeting with the Institute wherever practicable, but that the Pacific Coast and even Denver are too distant from the center of population of this society's membership to warrant going so far. The meeting next year will be in Atlantic City, N. J.

Another effort is to be made to have each meeting distinctively homœopathic. The plan proposed—to have a committee of three verify each claimed homœopathic cure, because the unsupported testimony of one man is not a scientific foundation for homœopathic therapeutics—we predict will be a lamentable failure. (It was voted to refer other therapeutic methods, such as electricity, to the same committee.)

First—This will incline the average man not to report his (homœopathic) cures, notwithstanding a resolution which was passed to the effect that "It shall be the duty of the executive committee to provide, as part of the progress of every meeting, a number of reports on verifications of homœopathic remedies."

Second—The chances are against the committee being able to duplicate the condition reported. It may be able to find a similar symptom in another—and probably very different—patient, and to see this symp-

tom disappear after the administration of the same remedy. This will give to similar reports an aspect of coincidence.

The underlying idea is praiseworthy but the method is, as shown above, far from unassailable.

It would be far more practicable and less open to the fear of censorship (because the plan adopted is not to print these reports until they are verified) if the criticism of each cure reported is made in open meeting by any and all members of the society present. This is just what societies are for, this would be a valuable kind of discussion. Any failure to satisfy all hearers of the diagnosis would at once appear; any laxity in so reporting a case that the relief cannot be attributed to anything but the remedy would be called to the attention of the meeting; and so with an omission to state the promptitude, thoroughness and permanence of the relief. Such criticisms successfully survived will place a therapeutic measure better sponsored than the plan adopted even if the latter could be carried out.

On the afternoon of July 1st a clinic was held at Hahnemann Hospital: Dr. Fellows extracted a cataract, Dr. Suffa operated two cases of strabismus, Drs. F. B. MacMullen and H. A. Foster enucleated tonsils, the latter with his finger, and the other showed how he packs the tonsillar fossa. Dr. Mackenzie demonstrated examination of a labyrinth case.

The Secretary reported that the volume of Transactions was issued about the first of last April.

Two delegates were appointed to the Fourth International Congress of School Hygiene at Buffalo, and resolutions were adopted:

"WHEREAS, Excessive use of the eyes for close work in childhood tends to induce a condition of progressive myopia and other ocular defects;

"Resolved, That the American Homœopathic Ophthalmological, Otological and Laryngological Society hereby places itself on record as condemning such increase of close work, particularly in the lower school grades, and as recommending the substitution of blackboard exercises for text book and written work."

The Society also voted that hereafter it will defray its own expenses wherever it meets so as not to be a burden upon its local members.

We are very glad that the presidential mantle has fallen upon the shoulders of Dr. J. Ivimey Dowling, of Albany, N. Y., one of the ablest men in our ranks; the Society has honored itself as well as him.

This issue of the JOURNAL is designated a special number because it is anticipated that the papers on, and the account of the demonstration of, lip-reading will prove of exceptional interest to our readers.

LIP-READING FOR THE ADULT DEAF.

MISS GERTRUDE TORREY,

Chicago, Ill.

THERE are two classes of deaf to whom special training in lip-reading is applicable. The first includes all types of the congenitally deaf and those who have become deaf so early that speech has been forgotten. The second includes those who have become deaf or hard of hearing after the tenth or twelfth year; at this age the faculty of speech is so definitely developed that even though the individual becomes entirely deaf he never completely loses this form of expression of thought.

There is a great difference in teaching lip-reading to the congenitally deaf and to those with acquired deafness. The former must be instructed not only in lip-reading but in voice production and in articulation. The young child in learning what the elements of speech are learns at the same time to read the elements from the lips. A child must not only learn to read the lips but must be given his education at the same time—using lip-reading as a medium. And he must be taught many things that a normal child will learn by himself through the use of his ears. With an adult it is simply a problem of learning to read on the lips words and expressions with which he is already familiar. When we see what can be accomplished by children with such a tremendous handicap, lip-reading for adults seems a simple thing in comparison. But we must remember that a great deal more is expected from an adult than from a child, and also that an adult has behind him many years of ear training which make the substitution of eyes for ears harder than for a child. In teaching adults and children the real difference lies in the fact that an adult is taught through his mind and a child, we might say, acquires his mind through his training.

It is lip-reading for the adult that I want to talk to you about.

In broad terms it might more accurately be described as a form of mind training. All hearing is more or less mental, as without the mind to interpret what we hear the sounds mean nothing to us. Ordinarily speech reaches the mind through the ear, but when the hearing

is lost it becomes a question of training the mind to take the impression through some other medium. For instance, the finger alphabet has been used. Now we use the eyes and the lips. Just as the sense of touch can be developed in the blind until it partially takes the place of the eyes, so can the sense of sight be developed in the deaf until it partially takes the place of ears.

The loss of one sense usually means increased sensibility of the others, and with the loss of hearing very often comes the ability to interpret, by means of the other senses, many things that a normal person learns almost unconsciously through hearing. For example, I can tell when a person enters the room by the vibration. I can often recognize the footsteps of different people by the difference in vibration, just as you can by the difference in sound. I can tell when it begins to rain by the difference in the feeling of the air, even if I cannot see or hear the rain. And there are many other things that I can tell just as well by some other sense as a normal person can tell by the use of his ears, and the interpretation is just as unconscious in one case as in the other. This power of interpretation is of great assistance in lip-reading, as lip-reading is simply one form of interpretation—and this ability is what makes it possible—and probably belongs to the law of compensation.

One of the first questions always asked about lip-reading is how long it will take to become a proficient lip-reader. There is a great difference in the ease with which different people learn lip-reading. Some find it very hard, occasionally one finds it almost impossible, and some find it comparatively easy. This is due to a difference in minds. A man or woman with a synthetic mind, a reasonable amount of intuition and quick perception, will be one to learn lip-reading easily. One with strong analytical tendencies, who is very literal and exact, will find it harder. No mind is made up entirely of the right or the wrong qualities, and systematic exercise and training will do a great deal toward developing the right qualities and overcoming the wrong. As we teachers always keep this aim before us, lip-reading becomes more or less a psychological problem.

Each pupil calls for individual work, and must be taught differently. One pupil is very nervous and can only get the most out of a lesson by slow and thorough work. Another is very quick but without application; the only way to keep her mind on the lesson is by working so rapidly that she can think of nothing else. Another is very exact

and literal and must be trained to guess, and another guesses too much and must be trained in the opposite way. This partially explains why it is impossible to tell before beginning the work just how long it will take to make a successful lip-reader. It also explains why much more can be accomplished in private lessons than in class work; though sometimes class work is a necessity because of expense or, as in the case of Chicago, where lip-reading for adults is taught in the night schools. Three classes were opened last winter in the evening schools, and the experiment proved very successful. .

In teaching lip-reading we train both the mind and the eyes. In training the *mind* we try to develop, first, synthetic ability; second, intuition; third, rapidity of thought. Fortunately thought is quicker than speech. You can think a passage that you know by heart in about half the time that you can speak it. Thought also skips, looks ahead and anticipates, so that a correct understanding is possible without word for word accuracy.

From the very first we give all work to the pupil at as high a rate of speed as his ability will allow. Slow and careful speech is easier to understand, but rapid speech will do the pupil more good.

The *eyes* must be trained to be, first, accurate; second, quick; third, to retain visual impressions; fourth, to do their work subconsciously. All this requires practice, more practice, and then more practice. Ferrari even goes so far as to say, "Speech-reading is not to be taught but only to be practiced." In a way this is true, for lip-reading is an art and all arts are to be practiced, but it is necessary to learn what and how we are to practice. Eventually the eyes ought to grasp the impression without knowing how it is done, just as in reading a book we are conscious of nothing but the thought we find on the page.

There are many movements that it is impossible to see and many words that we can only get by the context, so we try to train for infallible accuracy in the easier movements, leaving the mind to "supply the harder ones"—a thing that it does quite unconsciously.

Successful lip-reading calls for co-operation. There are many people that it is hard or almost impossible to understand—a condition of affairs that could be eliminated by a little care and thought on the part of the speaker. If one will enunciate distinctly the movements will take care of themselves and the greatest difficulty will be overcome. Another point to consider is the light. A good light on the face of the speaker makes a great deal of difference in following the movements.

And one thing that must always be avoided is exaggeration. Instead of making lip-reading easier it makes it harder and is a hindrance instead of a help.

I want to give briefly the technical basis of lip-reading according to the Nitchie method.

The vowels are classified in three groups—puckered, relaxed and extended. Watch my mouth while I say “boot.” You will see that the lips are drawn together or puckered. Now watch while I say “beet.” You will see that the lips are slightly drawn back, or extended, while for “bit,” the lips are neither puckered nor extended but are in a natural relaxed position. The width between the lips is narrow for all three movements. But if I say “paw” the lips are puckered but the distance between them is wide. In “bat” the lips are extended but the distance between is wide, and “bard” shows the relaxed wide. Between the narrow and the wide opening there is a medium opening, shown by “book,” “but,” “bet.” A few vowels combine two movements but most of them are single movements, and you can see that with proper training their mastery would not be very difficult.

The consonants are harder, and I will give only a few. Watch my mouth while I say “pie,” “by” and “my.” You will see that the lips open from a shut position for all three, and in any word that the sound of p, b or m occurs you will see the lip-shut position. For “f” and “v” the lower lip touches the upper teeth as in “few” and “view.” For the sound of “th” the tongue touches the upper teeth as in “thee” and “thou.” These are a few of the easier movements but will show you the theoretical basis of lip-reading, and give you some idea of how it is worked out. Some sounds, as “k” and “ng,” show no movement at all, being formed in the throat, and they must be told by the context. The difficulty in seeing some of the movements and the similarity of other movements is what makes lip-reading hard. But systematic training does a great deal in overcoming the difficulties.

Learning the theory and basis of lip-reading is the easiest part. I think that the average person can master the principles in about three months, taking two or three lessons a week. Sometimes one becomes a fairly proficient lip-reader in that time. The best lip-reader we had at the school in New York was an expert at the end of three months, but that is not apt to happen very often.

Usually the first three months ought to be followed up by from three months to a year or more of very thorough practice, either with a

teacher or some one who is able to give intelligent help. The time needed depends upon the pupil. To some extent this depends upon their natural aptness for lip-reading. But it also depends upon the amount of studying that they will do, the amount of practice they get, and their earnestness of purpose. Absolute concentration is the foundation of good lip-reading, and very little can be accomplished without it. As the majority of people lack natural concentration that is one of the difficulties to be overcome.

I have been asked whether the totally deaf or the partially deaf become the best lip-readers. Partial or total deafness has nothing to do with it. It is more a question of the individual than anything else. But total deafness enforces more practice. Age is another point that is usually inquired about. I think that most things are easier to learn when a person is young, but I have had middle aged pupils who have done as well or better than younger ones. Again it is a question of the individual.

There are two objections that are sometimes made. First, the strain upon the eyes, the second, that the hearing becomes less acute if one depends upon the eyes instead of the ears. There is a difference of opinion on these points, and I will only answer from my own experience.

By changing the work often, and stopping as soon as the eyes become at all tired, I find that there is little trouble; gradually the eyes become accustomed to the work. I have had pupils complain of their eyes during the first lessons who have had no difficulty later, but it is a point to be careful about always.

As to the loss of hearing Mr. Nitchie, who has had many years' experience, says he has never found evidence of such harm. Neither have I, but nevertheless I do not see *why* there should not be such a result, and I leave the point in your hands. As most deafness seems to be progressive it is hard to tell to just what an increase may be due. But lip-reading relieves ear-strain; and it seems to me that that ought to be beneficial. I think also that whatever may possibly be lost by the ears is made up many times over by what is gained in the ability to read the lips.

Lip-reading will never take the place of good ears, but to those who have lost or are losing their hearing it seems to be the one thing that will help them to keep their own place in the world. A deaf person leads a more or less isolated life, but the isolation is to some extent

self-imposed. Lip-reading helps to overcome it by making social intercourse a pleasure once more, and by increasing the self-confidence of the individual and making him less sensitive and retiring.

You have probably all had experience with the supersensitiveness and nervousness of deaf patients. I think you will find that a good lip-reader loses a great deal of this and is more normal in every way than the average deaf person.

Let me give one example: Last year I had one pupil who before she began to study would go nowhere and would see no one outside of her own family, even staying in her own room when visitors came. After three months' study she had become a pretty good lip-reader and a happy, jolly, friendly girl. She then went to New York for further study and the normal course, made many friends and had a thoroughly good time. This is an extreme case, but it will give you an idea of the possibilities of the effect of lip-reading.

You may be interested in knowing where teachers can be found. I will be glad to furnish a list of those using the Nitchie method to any who may be interested. Instruction can be given in most of the largest cities and many of the smaller. A teacher will also be sent anywhere upon sufficient guarantee. The Mueller-Walle school of Boston which uses a German method also has a number of normal graduates. *The Laryngoscope* and *The Volta Review* have directories of private schools for both children and adults. So you see that almost anyone wishing to learn can find a place to do so. But the wish very often depends upon the advice of the aurist, for many people know nothing about lip-reading beyond the mere fact that there is such a thing.

318 Ashland Boulevard.

The Division of Fees. The question of the division of fees between the physician and the specialist seems to be a burning question in the profession just now. Dr. Leo Jacobi's article and our editorial on the subject in the January issue of the *Critic and Guide* elicited numerous comments, and I would call special attention to Mr. Firmin's paper on the subject in this issue. It is certainly the strongest argument that could be presented for the unequivocal, unconditional abolition of this practice. If anybody still wants the floor in defense of the division of fees, the pages of the *Critic and Guide* are open to him.—*Critic and Guide*, Feb., '12.

SPEECH-READING FOR THE YOUNG DEAF CHILD.

MISS MARY McCOWEN,

Head of Deaf Oral Department, Chicago Normal School.

SPEECH-READING for the child, deaf-born, congenitally deaf or quasi-congenitally, is the understanding of spoken language when seen upon the face of the speaker and recognized and interpreted through the sense of sight; as such, it is identical with the speech-reading of the adult, grown deaf. But the process through which it is acquired in the two cases is very unlike because of the essential difference between the untrained deaf child and the educated adult who happens to be losing hearing.

The educated adult becoming deaf who wants to learn speech-reading has command of a conventional language, his mother tongue, and through the printed page he can still keep in touch with all that is being done in the world. Speech-reading is to him merely another form of language to master, a translation, as it were, of known language forms, spoken, heard, or written, into the language of facial movements, and can be acquired by any intelligent person who is willing to give the necessary time and effort.

For the little deaf child, however, there can be no process of translation because he has no language to translate—has *yet to learn* his mother tongue. His knowledge of the world is as yet in every direction limited to what he has gained through the senses of sight, feeling, taste and smell. None of these senses can by any unconscious process give him language, that medium which above all else distinguishes man from the beasts of the field. Language and speech are acquired by the normal hearing child, without the slightest conscious effort, during the first three to five years of life, through the sense of hearing. With defective hearing or none, the deaf child remains speechless and can only acquire either language or speech by special teaching and through conscious effort. Nor can the deaf child escape the universal law that controls the acquisition of one's mother tongue, namely, any intelligent child will gradually but surely learn to understand and use the language that is used with him and by which he is surrounded, be it German, French, English, Russian, Choctaw^{*} or the hand language

of motions and pantomime. Parents who want their hearing child to acquire proficiency in some foreign tongue secure for him a companion using only the desired language. Parents who desire their deaf child to learn to use and enjoy the English language must use it with him and insist that all others do so, and *must see to it that a nod of the head or a motion of the head is never substituted for the spoken word*. The motion may be easily understood by the child who, because he is a child and cannot understand or appreciate the value of speech, will be content to use the motion, happy to escape the effort that is necessary in learning to speak a word. But the habitual use of motions to express thought leads to facility in the hand language alone, and does nothing toward helping a deaf child get speech.

To recapitulate, the hearing child will learn English if he constantly hears it used and himself uses it. *The deaf child will also, according to the same inexorable law, learn English, through speech reading, if English is constantly used with him as the medium for instruction in school and for communication in both the school and the home*. The hearing child learns his first words through unconscious use of hearing; *the deaf child learns his first word (whether manual or oral) through sight*; and if he is orally taught, speech-reading becomes for him the medium for interchange of thought. This medium he gains unconsciously through use, and this medium he should continue to use in getting his education as unconsciously as the hearing child uses his hearing.

If taught by the hand language or otherwise than orally, the deaf child would have no practical use for speech-making and no basis for acquiring it. The following statement of the interdependence of speech, language, and speech-reading will perhaps help to make this relation clear: (1) A deaf child can be taught to articulate the elements of speech clearly and to pronounce words, but unless such articulation stands for the expression of thought it will remain simply articulation, cannot rightly be called speech, is not in any sense language, and can therefore be no basis for giving such a child speech-reading. (2) A deaf child, knowing nothing of either speech or language, has no basis for the interpretation of speech movements, and the movements on the face of the speaker are therefore meaningless to him. (3) A deaf child who has made a bare beginning in language getting and knows, say, ten words, will, if taught orally, understand by speech-reading these ten words. (4) A deaf child with what might be called a

"Second Reader vocabulary" will be able to understand to the limit of that vocabulary, while a man of culture speaking fluently several different languages, if deaf, or becoming deaf, may come to understand through speech-reading any one or all of these languages. The range of any individual's capacity for speech-reading is simply and directly dependent upon the range of his spoken vocabulary.

Although speech-reading is thus seen to be dependent upon the understanding and use of speech by both parties concerned, the speaker and the party addressed, as processes, they differ quite materially from each other. Speech is a succession of voice sounds, perceived and recognized through hearing, accepted and interpreted as arbitrary symbols of thought. These sounds are produced by voice formed in the larynx modified on its passage through the mouth by certain fixed movements of the speech organs. Little thought is given to the process, but the result, the sonorous effect, is the one thing that stands for speech among hearing people. This most important feature—the sound of *voice* in speech, is entirely lost upon the deaf. Consequently the deaf must look to other characteristics of speech for identification, characteristics that can be recognized by means of these senses which are available.

We say, in a general way, that the speaking deaf substitute sight for hearing in the recognition of speech; the human voice, however, cannot be heard by the deaf, neither can it be seen. The production of voice nevertheless involves adjustments of the vocal apparatus, certain movements that can be either seen or felt and sometimes both. As to the recognition of speech through the sense of feeling, every speech sound may be either felt as a vibration, or as an emission of breath, a stream or a puff of air. This recognition of speech elements by feeling has little to do with speech-reading although extremely valuable as an aid in the correction of speech defects and in teaching deaf children to speak. Now as to the recognition of speech through sight: if every phonetic element used in speech involved a characteristic facial appearance, a facial alphabet as it were which could be leisurely studied, the problem of speech-reading would appear to be an easy one and might be likened to reading from a written or a printed page. Unfortunately, in correct normal speech fixed static positions never appear, but instead a succession of ever changing, swiftly vanishing speech movements are seen. The individual positions overlapping, modifying and succeeding each other with great rapidity, occasional

pauses or breaks standing for obscure movements screened partially or altogether from actual observation, are puzzles which must be solved and interpreted in accord with the context.

Speech then suggests sound, and speech-reading, movement, both speech and speech-reading having a double aspect, the physical and the psychic, something that can be seen or heard and a content which must be read into each. The adult becoming deaf first learned speech through sound and now merely translates it into speech-reading through movement, the psychic interpretation assisting greatly in the later process. The little deaf child used speech-making—the interpretation of speech movements—in acquiring his first word and by continuing its unconscious use he is getting an education. To him a new spoken word exists as a group of speech movements and pauses bearing fixed relations to each other and standing for a certain psychic content. In learning the written form of words he discovers that certain positions and movements sometimes means “f” and sometimes “ph” and again “gh,” that a pause, a movement which he cannot plainly see, is sometimes interpreted “ing,” at another time “ough,” etc., etc., but these difficulties are met and mastered one at a time and each new word learned is an additional tool to be used in gaining others and in expressing thought.

The difficulties in the process make rapid progress appear to be the exception but taking into consideration the fact that the deaf child must learn his first vocabulary while getting his education, his progress, while apparently slow, is really not at all so. His problem is not just the getting of speech-reading but *the getting of language, the getting of speech, the getting of information, the getting of an education*—and he uses for this purpose as a constant medium of communication, *speech-reading, his mother tongue*.

The degree of efficiency attained by an individual deaf child in any of these directions will be determined by his personal qualities and his school and home opportunities, and it goes without saying that all do not do equally well. But, in view of present results where favorable conditions obtain, it becomes most difficult to realize that less than fifty years ago the possibility of intelligible speech for any deaf child was questioned, its value belittled, and the inestimable benefit of speech-reading for adults who are becoming deaf had scant recognition even by the profession.

This crying need has little provision in our country at the present

time, except through private instruction which is too expensive for those who have most need of it. Chicago is the one exception. Beginning in January, 1913, instruction in speech-reading for adults losing hearing was provided in classes in the regular public night schools in two different sections of the city—a beneficent work that might with very little public expense be established in any city where public night schools are already in operation.

The limitation of the subject assigned and of the time at command prevents any detailed presentation of the education of the deaf, but we offer a brief synopsis of the Chicago situation. The Chicago public day schools for the deaf were organized in 1875, and used the hand language exclusively for many years, as was the prevailing custom in the schools of the country at that period.

A private parochial boarding school was opened on the West Side in 1884, which was but recently removed to permanent commodious quarters in the northwest section of the city.. The year previous, in 1883, a small private boarding school was opened in Chicago, the first permanent oral school for the deaf in the west, and the first school in the country to receive young children at or under five years, and to persistently advocate the early education of deaf children.

The results of oral teaching as shown in the work of the advanced pupils in this private school led to a desire on the part of the Board of Education to open an oral day school class in 1896, as an experiment in the public schools. This class soon led to the establishment of others in different sections of the city. These oral classes grew steadily and the work has come to be a vital part of the public school system of Chicago. A department for the training of teachers of the deaf was opened in 1906 in the Chicago Normal School, a continuation of the Teacher's Training Class of the private school before mentioned, given up there at the earnest solicitation of the Board of Education and transferred to the Normal School. The small experimental classes for deaf children have now grown to an enrollment of 270 pupils, and have been recently gathered together in three centers, one on each side of the city. This will make possible better graded classes and add, we hope, in other ways to the efficiency of the schools.

In planning to-day's demonstration, it was the intention to present regular class work, but the schools having closed, many children have left the city for their vacation, and some of the groups are therefore rather depleted. No attempt has been made to cover the entire field,

but the exhibit will include types of the *totally* deaf at different ages and stages of development. Groups of young children in charge of their teachers, Miss Jennie E. Plumb and Miss Annah Steppe Taylor, who will illustrate first steps in language work, sense training and rhythmic games; Miss Gertrude E. Beck with her class will illustrate drawing for thought expression and vocal gymnastics as a preparation for speech; Miss Harriet Flanders with a small group will illustrate development of speech and the relation of oral to written language; Miss Effie Johnston will exhibit partially deaf children, with and without special aural training; Mrs. Nora Knisely Smith will exhibit academic work in language and mathematics with a class of eighth grade pupils who graduated in June at the Chicago Normal Practice School.

All of the children exhibited speak, some of them very well, and without exception all use speech-reading as a medium of communication.

The specialist, next to the family physician, has the earliest opportunity to advise with the parents of deaf children about their education, and we are glad therefore to be able on this occasion to present a program exemplifying certain educational features which do not regularly come to the attention of either physician or specialist absorbed as he is in the alleviation of deafness and the cure and prevention of all diseases which cause the loss of hearing or other human suffering.

DEMONSTRATION.

The Society and a large audience of lay people were privileged to see and hear an exhibit of lip-reading that was truly wonderful. Miss Torrey first demonstrated four adults who had been deaf for a varying period of years and whose hearing was a negligible factor; they had studied from three to eight months. These patients carried on conversations with Miss Torrey and Drs. Haseltine and Mackenzie, who went on the stage for that purpose. They read words from the motion of the lips that were entirely unfamiliar to them, even repeating after a few attempts the full name of the American Homœopathic Ophthalmological, Otological and Laryngological Society, which no member was ever known to pronounce in full.

Not the least remarkable part of the demonstration was that of Miss Torrey herself who has been deaf for many years. This was not un-

derstood by many in the audience who tried to ask her questions and got no response until they attracted her attention by some signal. Her own voice is so well modulated that no one would suspect that she was deaf. Miss Torrey's work is all with adults, most of whom have become deaf late so that their speech is fully developed.

Miss Mary McCowen's work is with deaf children, most of whom have never learned to talk until they enter her schools. She and her assistants presented fifty children in eight different groups from kindergarten to high school. The little ones have never had any means of communicating with other people except by signs until trained to read the lips. At first their speech is very indistinct and they make frequent mistakes, but under the intelligent care that their teachers give the speech becomes almost perfect. Of special interest was the evident growth of the mind, as shown by pupils in different grades. It was like the birth of a soul. At first the power of attention was weak and vacillating. The little minds could not be held long to a subject. After a few months there appeared a sparkling alertness and a strong power of the most intense interest and attention. No better proof of the success of the method could be offered. The progress that these children show is nothing short of marvelous. They imitated animals and danced to the vibration of music instead of its sound. The beginners are almost animal in their ignorance; many are congenital deaf mutes, others have become deaf so early that the speech faculty has been lost or nearly so. Even the play sense is never developed in some of them until Miss McCowen's assistants begin their work. The highest class presented, who have just been graduated from grammar school, consists of three boys and a girl, who well represent the different types of cases.

Two of the boys belonged to the intuitive synthetic group who learn very quickly. The third boy is analytic and learns slowly. They all had practically normal voices and would be bright students in any eighth grade class. Their conversation was on such subjects as the value of the Blackstone Hotel, and what the cost of insurance would be at one-fourth of one per cent., a problem in mental arithmetic.

One noticeable feature with all of the children is their writing on the blackboard. Even the little tot's script is very regular and distinct. Occasionally a letter is omitted in spelling, but it is usually one of the letters which is pronounced without lip movement, so they evidently do not spell entirely from visual memory.

Miss McCowen was asked at what age she advised commencing the child's training. Her answer was prompt: "As soon as the diagnosis of deafness is made." She explained that young children forget very quickly the words they have learned if they acquire deafness in the first few years, they also forget the intonation unless they are constantly exercised.

Her work is not only in the city schools, she also has two school homes for deaf children where both free and pay cases are taken. In token of our appreciation of her work for the poor the Society members contributed the sum of \$75.00 as a gift. Miss McCowen spoke most feelingly of the gift; she said it was the only contribution from any medical society she has ever received. Also that the first recognition that her work ever received was from the late Dr. John W. Streeter, of Streeter Hospital, Chicago, and formerly on the faculty of Hahnemann Medical College.

One of the questions that interested the society members was as to the cost of private training in lip-reading. The impression was that it was rather expensive, but Miss Torrey said it was about the same as for music lessons or for treatments by ear specialists. Some of the men discussing the question later suggested that if the money that would be spent on operations and treatments for the cure of incurable deafness should be spent for lessons in lip-reading it would be more to the credit of specialists as a class.

DR. HASELTINE: This is the most important feature of the whole meeting of this society, certainly the most interesting and instructive that it has had in all the twenty-six years of its existence, and I move that these papers by Miss Torrey and Miss McCowen be printed in an early issue of our official journal with an account of the demonstration. Seconded. Carried.

Spirochetes in the Mouth.—It is extremely dangerous to diagnose syphilis in the presence of merely a buccal lesion by finding spirocheta in a smear, because Thibaudeau found in normal mouths *spirocheta microdentium* which "can not be differentiated from certain types of the spirocheta pallida by the morphological criteria at hand."—*J. A. M. A.*, vol. 59, no. 6.

A REVIEW OF THE HOMŒOPATHIC THERAPEUTICS OF OTITIS MEDIA CATARRHALIS ACUTA.

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THE circumstances under which this paper came to be written will first be stated. The president requested some personal experience of the subject in general. I made such little headway in trying to write on the remedies at random that I decided to select some definite subject. This was only a short time before the date set to place papers in the hands of the secretary, so I made a search of the Transactions of this society and found so little had been done on this subject that I decided on it. The time necessary to search the literature at hand was considerable; far more than the actual writing. Consequently it is not in as good shape as I could wish, and I can only offer it for what it is worth.

I can only vouch for the symptoms in so far as they are from good authorities, but I am responsible for the selection of them. Some of the remedies of course we use constantly, other infrequently. It may not be complete enough, and I hope the discussion may add remedies and symptoms and make any needed corrections.

The material was collected from the O., O. and L. Transactions, JOURNAL OF OPHTHALMOLOGY, OTOTOLOGY AND LARYNGOLOGY, the books of Winslow, Houghton, Sterling, Vehslage and Hallett, Copeland, in Gatchells' Pocket Book, Boyle and various materia medicas, therapeutics and repertories.

Aconite.—The drumhead is red, almost copper colored, with visible engorged and throbbing vessels.

The pains come on suddenly, with deafness. In character they may be dull or sharp and tearing. The throat may be sore with sharp pain running along the Eustachian tube to the ear. Violent pain in the ear and all over the side of the head. Earache following a sudden change of temperature or after exposure to wet and cold. Sensation of fullness in the ears. Tickling, as if something alive in the ears. The tinnitus is an intolerable roaring, humming or ringing. Vertigo may be present. When deafness occurs it is sudden. Sensitiveness of hearing and intolerance of every noise, even music.

The constitutional symptoms are high fever and full pulse, faintness; slight delirium; nervous excitement. The patient is cross and restless. The skin is hot and dry. Dryness and scraping in the throat. There is an aggravation in the evening and by warmth.

Belladonna.—The face is flushed with feeling of heat in the head, but hands and feet are cold. The congestion of the tympanum and tympanic membrane is pronounced; enlarged vessels covering its surface. Injection of the vessels on the superior wall of the external canal, near the tympanic membrane. The throat is bright red, raw and swollen; constriction; constant inclination to swallow. The tonsils are enlarged and lymphatic glands swollen. Tender spots back of ear and anterior to tip of mastoid. Stinging sensation in the mastoid.

The pains are piercing but inconstant and erratic; may extend to the mastoid or external canal; shoot from the throat to the ear and again darting through the temporomaxillary articulation, the parotid, the temples, orbit and occiput. Pain described as beating, throbbing, digging, boring or tearing.

A tinnitus with ringing, buzzing, roaring and fluttering sensations. Noise as of a telegraph instrument has been described. Autophony.

Usually some deafness, but may have intolerance of noise.

Marked chilliness. Feverish and pulsating carotids. The eyes brilliant with dilated pupils, and sensitive to light. Cerebral excitement and restlessness. Sleepiness but cannot sleep. The aggravation is after 3 P. M. and at night; from touch and from draught of air. Relieved by warmth.

Borax.—Mucus discharge. External meatus swollen. Ear hot.

The earache is paroxysmal and stitch like pains. Soreness and feeling of heat in ear. Roaring in ears. The hearing power is apparently increased; the slightest noise startles.

Patient is exceedingly nervous. With each attack a sudden start. Children fret and cry. Dread of downward motion.

Comes on early in the morning and is made worse by warmth.

Bryonia.—Serous character of the secretion.

The pains are dull, tearing or stitching. Painful sensitiveness of the ear. A feeling as of stoppage in the ears. Deafness or intolerance of noise.

Vertigo with nausea and faintness on rising. Great dryness of the throat and stitches when swallowing. Voice rough and hoarse and dry cough. Excessive thirst and desire for large quantities of water.

Muscular and articular soreness. Stiffness of the neck. Worse from motion and heat.

Chamomilla.—Auricle red and hot.

Pains very severe and in paroxysms. Shooting, pressing, sticking, tearing pains. Roaring in the ears as from rushing water. Marked sensitiveness to noise; music intolerable.

Cannot endure pain. Very restless and screams. Peevish and irritable. Hot perspiration about head. Face changing color, now red and hot, then pale. More particularly indicated in children or when the patients are very intolerable of pain.

Worse at night and from the slightest cold. Surprisingly quiet from being carried about or from motion.

Ferrum Phosphoricum.—Face flushed. Redness of meatus and hyperemia of drumhead. Marked congestion of membrane.

Pain steady and aching. Throbbing with feeling of tension and heat in the ear. Sharp sticking pains, occurring in paroxysms. Beating in the ears with dull roar or humming sound. Rushing sounds, as if could hear the blood coursing through the vessels. Abnormal sensitiveness to sound.

Apathetic depression and anxiety. Head dull, heavy, full, with flashes of heat. Feels better in open air.

Gelsemium.—Exudate is nearly pure serum, and under inflation bubbles.

Pain from throat to middle ear. Closure of Eustachian tube. Great sensitiveness to all sounds; rushing and roaring in ears. Sudden temporary loss of hearing.

Giddy sensation. Complete prostration of muscular system. Apathetic. Fever not marked. Lack of thirst. Patient inclined to stupor. Head symptoms of pressure and tension, relieved by pressure and binding.

Hepar.—Localized tenderness of the tissues about the ear, especially at front. Profuse sour smelling perspiration.

Sharp, darting pains in the ears. Stitches in the throat extending to the ear. Whizzing and throbbing in ears. Hardness of hearing.

Extremely sensitive to air. Worse at night. Relieved by wrapping and by warm applications.

Kali bichromicum.—The external meatus is swollen, inflamed and painful. Membrana tympani is much congested. Discharge ropy and stringy. The glands of the neck may swell and the parotid of the side affected.

Pains are sharp and stitching and shoot up into the head, roof of the mouth and also down into the neck. Pains shoot from the ear in the swollen glands. Pains pulsating, especially at night.

Fat, chubby children; light haired persons who are inclined to grow fat. Ulceration circumscribed and deeply penetrating. Tired and cold. Sensitiveness to cold. Worse in morning.

Mercurius.—Tenderness about canal and auricle. Enlarged, sensitive cervical glands and tonsils. Stomatitis. Ulcerated sore throat. Tongue large, flabby, indented. Fauces inflamed. Increased secretion. Perspiration which does not relieve. Greasy perspiration. Perspiration from least exertion.

Deep seated, tearing and shooting pains extending to the malar and inferior maxillary bone. Aching and soreness. Ringing sounds vibrate in ears. Deafness. Obstruction momentarily better after swallowing or blowing nose. Worse at night.

Natrum sulphuricum.—Sharp, lightning-like stitches in the ear. Pressing in ears as if tympanum were pressed out. Ringing in ears as of bells.

Catarrhal affection from damp, rainy weather; cold bathing; playing on wet ground.

Pulsatilla.—Paroxysmal stitches of pain. May be acute and lancinating at night. Fullness of the ear. Tinnitus. Pulsation and a rushing sound in the ears. Deafness.

Raw soreness of the throat with venous congestion of pharynx and fauces and some clinging mucus. Chilliness alternates with flushes of heat and some time sweat. Persons of extremely sensitive nature; children and women; fair complexion.

Relief of most symptoms from being in the open air or in a cold room.

8 W. 49th Street.

STILL ANOTHER SUGGESTION FOR ATROPHIC RHINITIS: THE DOUBLE IODIDE OF MERCURY AND POTASSIUM.

DOUGLAS MACFARLAN, M. D.,

Philadelphia, Pa.

WITH such a chronically recurring and intractable condition as atrophic rhinitis one may be readily worn down by suggestions coming from all quarters as to what is most beneficial. The cold facts are, and the mere multitude of these suggestions confirm it, that atrophic rhinitis cannot be cured by any methods we have now at hand. Our treatments are merely palliative and symptomatic, purely local. The field of internal medicine in its relation to a beneficial resource is apparently barren and untouched. Those few conscientious workers who have explored it have been repaid but little of their endeavor and have come back to local treatment practically empty handed. Even old reliable mercury and potassium iodide will refuse their help to those cases that are distinctly syphilitic in origin.

So, reluctantly, again we resign our cases to their daily sprays and local applications, and try to give them the most serviceable of these that our science affords. To add to the already innumerable list, another still recommends itself. It is the double iodide of mercury and potassium, made by dissolving the red iodide in a weak solution of KI. Approximately twice the bulk of KI will put HgI_2 in solution to form this new salt K_2HgI_4 . The solution is clear and colorless, and even in dilutions as low as 1 per cent. exhibits marked irritant effects on the mucous membrane. Applied in such strength as a swab to the nose, a profuse rhinorrhœa and lachrimation start up that often last an hour or two. The membranes become congested and red, and a burning or tingling sensation is complained of. However the symptoms are but slightly disagreeable, the continual wiping of the nose being the greatest inconvenience. As from any irritant, a severe sneezing attack is frequently precipitated.

Beside this irritant quality the drug has one other property that it exhibits in a remarkable and valuable manner and which above all recommends it in this disease: it is powerfully antiseptic. From the

tables of a number of investigators of relative antiseptic powers of drugs, it is found that the red iodide of mercury has a germicidal strength in dilutions of 1:40,000. But this salt of the red iodide and potassium iodide is approximately twice as strong, exhibiting its powers in the remarkable dilution of 1:80,000. Imagine then the strength of a 1 per cent. solution! And more remarkable still its complementary effects are not dangerous or undesirable; it is not escharotic, nor extremely toxic. Five to seven drops of the 1 per cent. solution may be taken internally and tolerated, beyond this an emesis is produced which eliminates the poison. No cumulative effects, such as ptylism, skin eruptions or other results of potassium and mercury given in other forms, are seen. A prolonged treatment of months' duration has not produced these effects and only occasionally develops a diarrhea which rapidly subsides on cessation of the remedy. Such effect is only seen when the drug is taken internally and not when used as a spray, as is presently to be suggested.

Two things are admittedly desirable in the local treatment of atrophic rhinitis: *antiseptics*, to overcome the purulent complication and *ozena*; and *stimulation* of the mucous membrane, with hopes of exercising, rejuvenating or multiplying what secretory cells may remain. These conditions the double iodide covers in a most complete manner, outstripping in this respect the time honored formaldehyde whose virtues are analogous.

For the past four months this solution in 1 per cent. strength has been used as a spray on all cases of atrophic rhinitis of all ages and circumstances, and the results have been so rapidly conclusive that no hesitancy is felt in stating a preference for it. Whereas it took on an average two or three months to favorably effect and get the upper hand of an old case, the present results are obtained in half the time and with more thorough satisfaction. A number of the cases have been in good shape in a month's time, having been treated twice or three times a week. Nothing further than the symptomatic relief is to be expected from the treatment, and a future recurrent is to be expected when the patients again get away from care and cleanliness. Such unfortunately is invariably the history in the poorer classes. But the results as to the clearing up of the *ozena*, the disappearance of pus and crusts are decidedly worth while, and the patients gratefully express their increased comfort.

More or less tolerance to the irritating qualities of the solution is

developed as the treatment is carried out; nevertheless it is seldom necessary to increase the strength to more than 1 per cent.

It may be well to take caution about such a strong solution if the remedy is tried on other cases less insensible than are atrophics. A weaker solution is equally effective as a germicide, and occasionally a hypersensitive nose is met with that will be quite severely "stung" by dilutions as strong as 1 per cent. The author has seldom had occasion to use it in the nose for other than atrophic cases.

With these recommendations the "double iodide" is then suggested to those who are as yet without their hobby or atrophic rhinitis. It is powerfully antiseptic and sufficiently irritant; and with such instruments it seems we will have to be content in the local treatment and await the millennium when the cause will be known and open a way for better light.

It is seldom desirable to allow any but an educated, well understanding patient to use the following formula:

R. Red iodide of mercury 1 g.
 Potassium iodide 2.2 g.
 Distilled water 100 c.c.

Dispense and label poison, use only in spray, do not swallow.

1805 Chestnut St.

Treatment of Styes.—They are usually but not always indicative of derangement of the general system. Hot boric acid fomentations for one-half hour every three hours induce a focus of suppuration; pluck the cilia found there, or evacuate through a small cut parallel to the lid margin. When there is tendency to recur correct refraction; several times a day bathe the eyes with a lotion of boric acid, grs. x; borax, grs. v, and glycerine, minims x to the ounce of water; irrigate the conjunctival sac with the same and follow with a few drops of (fresh) argyrol solution. At night, and also throughout the day, anoint the margins with yellow oxide of mercury, 2 grains to the ounce of soft paraffin; improve the general health. If these fail make injection at regular intervals of autogenous vaccine from the pus of one of the styes.—*Med. Rev. of Rev.*, April.

HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

DEPARTMENT EDITOR, PHILIP RICE, M. D.,

San Francisco, Cal.

A FEW EYE REMEDIES.

JOHN L. MOFFAT, M. D.

Agaricus. *Objective.*—*Twitching in or of the lids*; contracted palpebral fissure without swelling. Very little redness. Twitching of (in) the ball, often painful; while reading, < left. Myosis.

Subjective.—Biting, itching, jerking in the lids and brow. Aching and pressure in the ball, it is sensitive to touch; *burning and itching*; stitches. Eyes feel weak.

Vision.—Dim, as in a mist, with *flickering*. Reading difficult as *type seems to move, to swim*. Yellow spots when looking at white. “Vibrating specters.” *Muscae volitantes*. Short sighted.

Clinical.—Particularly useful in asthenopia from prolonged strain; weakness, fibrillar spasms.

Asafetida. *Subjective.*—*Severe boring (bone) pains above the brows*; > pressure. Troublesome dryness. Periodic burning in the eyes and pressing together of the lids, as if overcome with sleep. Burning pain in the ball from without inward. Throbbing pain at night, > pressure.

Characteristics.—The pains, > by rest and pressure (reverse of aurum), are usually throbbing, beating, boring or burning in, over or around the eye; often intermittent; they extend from within outward.

Clinical.—Syphilitic iritis. Ciliary neuralgia.

Bothrops lanceolatus. *Vision.*—Hemeralopia, day blindness; can scarcely see her way after sunrise. Aphasia.

Cedron. *Subjective.*—*Severe shooting pain over the left eye*. Pain across the eyes from temple to temple. Severe pain in eyeball, radiating pains all around the eye, shooting into nose. Scalding lachrimation.

Characteristics.—*Supraorbital neuralgia, periodic*; more often over the left eye, may follow the branches of the supraorbital nerve into the head. The pains, usually sharp, may come and go suddenly; may be < evening or on lying down.

Clinical.—Iritis, choroiditis, with such neuralgic pains. There may be intermittent fever, or cerebral congestion. Is particularly useful in tropical countries, or for troubles in or from a damp, warm, marshy country.

Cicuta. *Objective.*—Eyes stare. Pupils dilated, insensible; first contracted, later dilated. Lids tremble and twitch.

Subjective.—Eyes sensitive to light.

Vision.—Objects appear to alternately approach and recede. Diplopia, objects appear double.

Characteristics.—Extremely sensitive to touch or drafts; these may bring on (little) convulsions, which spread from the eyes, head, throat to the back and extremities.

Clinical.—Spasmodic affections of the eye and its appendages. Strabismus, periodic, spasmodic, after a fall or a blow.

Transillumination of the mastoid before operation often gives an idea of the position of the lateral sinus.

The two plates, showing five sections, are excellent. The article is supplemented by 60 references covering 1854-1910.—G. Coats, *R. L. O. H. R.*, July, 1912.

Tumors Arising in Sweat Glands.—The derivation of a new growth from sweat glands may be assumed if a connection with normal gland tissue can be proved; if the normal gland structure is reproduced or imitated; and if characteristic secretion products can be demonstrated. Of these the second is of chief importance.

The structure to be expected in a sweat gland tumor will differ according to whether the growth arises in the secreting tubule or in the duct.

In tumor of the sweat glands an exact reproduction of their characters is not necessarily to be anticipated, for even in the simplest tumors the formation of cysts, etc., will cause a certain amount of flattening and modification of the epithelium, while in less typical growths there will be some irregularity in the form and arrangement of the cells; but at least in the more typical parts, as Wintersteiner has insisted, the lining should be double, and if the tumor is derived from the secreting portion of the gland the two layers should be dissimilar.

Pennsylvania Requires One Year's Service as Hospital Interne. The amendment to the Medical Licensure Act, providing that all graduates must serve one year as internes in hospitals before taking State examination, was passed on April 1, 1913, at Harrisburg, Pa., in the House 127 to 47. Doctor Newbaker Montour said the idea was to protect the State from medical colleges which have less stringent requirements than Pennsylvania institutions.—*Hahn. Mo.*, April.

JOURNAL CLINIC.

An original method of applying iodoform to suppurative and nonsuppurative middle ear disease.

FRANK E. MILLER, M. D., New York.

Iodoform *raised by heat of alcohol flame to white vapor* and instilled into the internal ear through external auditory meatus or Eustachian orifice by catheter has cured many cases of chronic otitis media with or without infection, especially chronic cases. The iodine liberated by heat is marked, first, by a reddish blue vapor accompanied by a typical iodoform odor; following this is a whitish green fluorescent cloud which resembles honey in its sweetness of taste and clover-like odor and is thoroughly and completely free from its former intense odor so disagreeable to some. It can be applied by a DeVilbiss metallic tipped insufflator by just *heating the bendable tip for seven seconds* in an alcohol or Bunsen burner flame; as soon as the reddish blue-vapor arising from the heat passes off and the whitish fluorescence comes the remedy is at its best for immediate use.

A case of four years' standing of people in affluence was cured in two weeks with applications made on alternate days.

Never use iodoform when there is the slightest suspicion of idiosyncrasy against it. If you do—through defective history given by patient—at once use a weak alkaline solution of magnesia, sodium bicarbonate, lime water, one to four Burow's solution, antiphlogistine, ichthyol, 10 per cent. solution, or pack ear with morphia and antiphlogistine after 50 per cent. cocain and adrenalin solution, providing there is no tympanic perforation; combine these also with internal administration of milk of magnesia, one teaspoonful every three hours, until bowels move; then laxative alkaline before breakfast each morning with bismuth and bicarbonate of soda powders, 10 grains each, one hour after convalescent diet.

The whole of the metal shank can be heated and blown into external canal through an ordinary ear speculum, or through an Eustachian catheter passed through the nostril. The degree of heat of the vapor can easily be tested by holding the nozzle one inch from the tip of the operator's tongue: a pleasant warmth and taste will announce the correct condition of vapor for application to the patient's ear, and can then be blown steadily into either portal of the internal ear for about three seconds, causing a pleasurable heat and an agreeable soothing sensation for ten minutes thereafter.

The administration of three drops of 1:1,000 solution adrenalin chloride, nebulized into internal ear previously adds much to the effectiveness of the iodoform.

CURRENT LITERATURE.

DEPARTMENT EDITORS.

WM. McLEAN, M. D.,
New York.

FRANK O. NAGLE, M. D.,
Philadelphia.

KLINISCHE MONATSBLÄTTER FÜR AUGENHEILKUNDE.

Juni.

Zur operativen Behandlung der Sehstörungen beim Turmschädel.
Dr. Schoffer.

Über den ophthalmoskopischen Befund der Area Centralis des Albinotischen Auges. Dr. Ichikawa.

Zur Kasuistik der Erkrankungen der Hypophysis und deren Umgebung. Dr. Lange.

Ein Fall von seltener Schrotschussverletzung. Dr. R. Hesse.

Ein Fall von doppelseitiger orbital Phlegmone nach Empyema der Stirnhöhle und der Siebbeinzellen unter besonderer Berücksichtigung des pathologisch anatomischer Befundes. Dr. S. Takashima.

Xanthopsie bei Santonin missbrauch. Dr. H. Yamaguchi..

Fünf Fälle von Hydrophthalmus Congenitus unter besonder Berücksichtigung des pathologisch anatomischer Befundes. Dr. S. Takashima.

Ophthalmoskopischer Befund bei pulsierendem Exophthalmus. Dr. Rübel.

Ein Beitrag zur Entwicklung der amyloid Degeneration der Conjunctiva. Dr. S. Ichihara.

Über das Papilloma der Kornea. Dr. S. F. Puccaluga.

Ein Beitrag zur Pathologie des Ulcus rodens corneæ. Dr. K. Ickikawa.

Zur Frage der Pilz Konkreme in Tränenrohrchen. Dr. A. Loivenstein.

Doppelte Perforation des Auges durch aufspießen. Dr. H. Davids.
Bemerkungen zu der Arbeit. von Van der Hoeve.

Extraktion von Kupfersplittern aus dem Glaskorperraum. Prof. E. V. Hippel.

**ANNALES DES MALADIES DE L'OREILLE, DU LARYNX, DU NEZ
ET DU PARYNX. Juin.**

1. La voie d'accès dans le labyrinthe ethmoidal suivant le procédé d'Harris Mosher (Boston). H. Luc.

*2. Sur l'implantation effective des tumeurs fibreuses du nasopharynx. V. Falgar (Barcelone).

3. Une épingle dans la trache gauche chez une fillette de 17 mois. Garel et Gignoux.

4. Diagnostic et traitement des corps étrangers des voies aériennes. Jean Guisez.

*2. Translation of an interesting paper presenting seven cases with half tones of microphotographs. The author feels certain that in such cases and with multiple insertions one could discover the existence of conjoined attachments which are wanting in the secondary insertions, these taking root habitually at the junction of the ethmoid and the body of the sphenoid with radiations toward the body of the pterygoid apophysis, the choanæ, vomer, posterior ethmoid, sphenoidal and maxillary sinuses. He would not consider implantation of these tumors at the same point a simple coincidence. Examining closely one sees that these tumors are very rarely implanted in the interior of the maxillary and sphenoid sinuses, and equally rare is insertion at the vault of the cavum. But sphenoethmoidal insertion is common; his seven cases cited confirm its frequency here without exception.

**ANNALES DES MALADIES DE L'OREILLE, DU LARYNX, DU NEZ
ET DU PHARYNX, Juillet.**

*1. Psychopathies pharyngolaryngéals. F. J.. Collet.

*2. Epreuve du diapason-fantome appliqué au diagnostic de la simulation de la surdité unilatérale. E. Escat.

3. Hypertrophie du thymus chez un enfant de deux ans et demi. Trachéotomie. Thymectomie. Mediastinite suppurée. Guérison. Antoine Jouty.

4. Contribution à l'étude de l'antrite sphenoidale chronique. M. Mignon.

5. De l'œdème aigue infectieux primitif du larynx et de ses relations microbiologiques. (Etude contributive.) L. Bar.

6. Kystes du sinus maxillaire. F. J. Collet.

7. Les indications et la technique de la trepanation labyrinthique. A. Hautant. (Soc. Franç. d'Oto.-Rhin.-Lar.)

*1. These are: nervous aphonia, sometimes associated with nutrition or troubles of deglutition, nervous cough, paralysis of the soft palate, and dyspnea.

*2. The patient's attention is distracted by "testing" the good ear with a silent tuning fork (or watch) which he thinks is vibrating, while a sounding fork at the same time tests the ear which is said to be deaf. Two "little c" forks (do², 128 double vibrations per second) are used with separate rubber tubes, one of which is occluded at its middle by a solid cylinder of wood or glass. An assistant is necessary.

REVUE GENERALE D'OPHTHALMOLOGIE. Juillet.

Contribution clinique au procédé en vanne dans l'ectropion de la paupière inférieure. Dr. Espinouze.

ANNALES D'OCULISTIQUE. Juillet.

1. Exophtalmie consécutive à une inflammation des muscles extrinsèques de l'oeil. A. Chevallerau et Offret.

2. A propos de deux cas de greffe cornéenne. Dr. Marbaix.

3. Des localisations oculaires du xéoderma pigmentosum. Dr. Sulzer.

4. Les moyens optiques et les exercices orthoptiques dans le traitement du strabisme. Dr. Rasquin.

*5. Diagramme universel pour ordonnances. E. Mayer.

*5. Mayer recommends this universal diagram for all prescriptions, on a paper about 15 cm. square: (1) four complete diameters at 45° from each other; (2) eight diameters, 15° apart, and from the others, shorter and not passing through the center; (3) between each of the above, representing differences of 5° lighter radiating lines extending but half way to the center. The horizontal line W E represents the line connecting the centers of the trial glasses in their frame. The vertical line is marked N and S. The diopters are marked opposite their diameters; for a sphere at the E; if at W or in the lower half they are to be read as —. The direction of the axis is thus indicated by the location of the figures indicating the strength of a simple cylinder, but for spherocylinders these indicate the *meridian* of greatest and (90° away) least power, as determined in skiascopy. The strength of the prism is written at the end of the diameter leading from center to its base. If the diagram is to represent the trial frame on the patient's face (right eye to the reader's left) mark a little cross,

x, in front of each number; make a little circle if the right eye is to the reader's right (as if the spectacles were on the table with their temple bows in the air). Capital R and L indicate distant vision, small r and small l for near vision. Spherocylindrical glasses are demanded by underscoring the diopters, but these are enclosed in a rectangle for bicylinders, encircled for a spherotoric, and a double circle drawn around them for the bitoric.

One diagram suffices for both eyes, near and distant vision.

J. OF OPHTHALMOLOGY AND OTO-LARYNGOLOGY. July.

*1. Autointoxication by indican in relation to the eye. H. L. Hilgartner.

*2. Attenuated types of suppurative sphenoiditis in relation to so-called postnasal catarrh, to headache with mental daze and to asthma. W. E. Casselberry.

3. Primary sarcoma of the cornea. A case. L. W. Dean.

4. Conical cornea. A case. J. R. Hoffman.

5. Indications and contraindications for vaccine therapy. Adolph Gehrmann.

6. Personal experience with vaccine. Wm. A. Mann.

7. Reactions in the diagnosis of gonorrheal eye diseases. Ernest E. Irons.

8. Clinical significance of some forms of congenital cataract. Derrick T. Vail.

The last six at the Chicago Ophthalmological Society.

*1. Mrs. F. B., age 33. Left vision gradually falling for six years. Specialists at different times said the nerve was atrophying, and gave strychnia in large doses. V. 18/50. Ophthalmoscope revealed partial atrophy of the optic nerve. Excessive indicanuria. After treatment one month for autointoxication vision of the eye improved to 18/30.

*2. The difference between radical and palliative treatment is that between a dangerous and a safe operation, free drainage and "as nearly so as may be consistently possible."

If cure is defined as a total suppression of disordered secretion and other symptoms, it can be said to follow only when the focus of infection is exceptionally limited and accessible. But if nine-tenths or more of the distress and disability incidental to the postnasal discharge be eliminated, material mitigation of the asthma afforded and the head-

ache with possible mental deterioration wholly remedied it amounts to a practical cure, in this sense a large majority of the attenuated types of sphenopostethmoid infections are curable by the methods described, and well worth the attempt.

ROYAL LONDON OPHTHALMIC HOSPITAL REPORTS, July.

1. Thomas Young (with portrait).
2. Blindness from optic neuritis without intracranial disease in a pedigree bull. Several cases, probably of the same kind, in other members of the pedigree. Reference to other cases of amaurosis in domesticated animals. E. Nettleship and A. C. Hudson.
3. Note on hereditary primary glaucoma. J. B. Lawford.
4. Pathology of obstruction of central artery of the retina (illustrated). George Coats.
5. On the preservation of visual field after obstruction of the central artery of the retina. George Coats.
6. Visible anastomosis on the papilla after obstruction of the central artery. George Coats.
7. A simple method of cataloguing museum specimens. A. C. Hudson.
8. Cataract extraction with peripheral iridectomy.
9. 1,305 London County Council school children at Moorfield's Eye Hospital. Frank Moxon.
10. The perception of a luminous point. Part 2. J. H. Parsons.

THE OPHTHALMIC RECORD. July.

1. A case of spring catarrh: a pathological report. Hanford McKee.
- *2. Two cases of snow blindness. Geo. H. Mathewson.
3. Two new cross cylinder holders. J. N. Rhoades.
4. A case of optic atrophy caused by uterine hemorrhage. F. P. Calhoun.
5. Heterochroma iridium. Carl Williams.
- *2. In two cases of snow blindness the usual symptoms were present plus a thin ulceration covering the lower part of the corneas (the corneal area exposed to the reflected rays). The writer considers the condition a typical sunburn.

THE OPHTHALMIC REVIEW. July.

*1. Two cases of permanent hemianopsia following severe attacks of migraine. Arthur W. Ormond.

2. Sclerotomy. An operation for glaucoma. G. N. Pooley.

*1. The article cites three cases of permanent hemianopsias reported by Dr. Thomas in 1907, and then reports two cases seen by the writer. All of the cases reported were females. The first of the author's cases was 33 years of age, and subject to recurrent migraine for ten years. During the more severe attacks the sight was said to be affected temporarily, while during a very severe attack the vision was affected and she noticed that objects to the right side were shut off from the vision.

The hemianopsia has remained permanent. A physical examination failed to discover any defects of the heart, lungs, blood vessels, etc. An eye examination revealed a small amount of hypermetropia with astigmatism, ocular movements unaffected and fundus healthy.

Second case, aged 32, and subject to bilious attacks for many years. At the time of the development of the hemianopsia a severe attack of migraine presented with lasted for some days. Patient was three months pregnant. Hemianopsia affecting the left field appeared after hurrying to catch a train, the exertion and migraine were sufficient to cause her to go to bed for the balance of the day. Patient recovered from the attack of migraine but the hemianopsia remained, and when seen nine months later there was no change in the field of vision. In conclusion, the writer suggests that simple migraine may be followed by permanent lesions involving the cortical area, and that migraine may be due to a local vasomotor spasm causing anemia, that in some cases the temporary spasm is followed by a permanent thrombosis in the vessels in question.

OPHTHALMIC REVIEW. Aug.

1. Eyesight and navigation. Freeland Fergus.

NOTE.—The paper presented by Dr. Freeland Fergus is a very complete résumé of the methods used in testing the eyes of British navigators. He decries the test type charts used by oculists as being inadequate, also the colored wool skeins as not being a good color test for navigators. He recommends a form test for the sight, and actual colored lantern tests under varying weather conditions for the color test.

MEDICAL REVIEW OF REVIEWS, Aug.

1. Wood alcohol blindness. Editorial.

5. The control of cocain. Editorial.

*14. The importance of ophthalmological examinations of immigrants. Martin Cohen.

*14. The writer concludes that (1) at least one member of the Public Health Service in the principal ports of entry must be experienced in ophthalmological examinations; (2) it is advisable to determine the percentage of fundus lesions which are likely in after years to incapacitate the individual; (3) formulate some plan for differentiating clinically trachoma from its simulating affections; (4) recognize promptly the latter.

ABSTRACTS.

Treatment of Trachoma.—Dr. W. H. Harrison removes the contents of the granules by expression with expression forceps. In cases where only one eye is expressed the improvement of that eye is so much more rapid than the other as to give the case the appearance of a unilateral affection. After expression he formerly used ice compresses for several hours on the closed lids, but has found that pledgets of cotton wrung from water as hot as can be borne, and changed every two minutes for about thirty minutes, are much superior. At the end of the application of hot pledgets, a drop of a 25 per cent. solution of argyrol, or some bland oil, may be placed in the eye. The eye on which expression has been done usually glues together for two or more mornings afterwards, and should be cleansed by having all secretion carefully wiped from the lids, canthi and lashes by moistened pledgets of cotton. This should be repeated as often as necessary, and a drop of oil or argyrol may be used two or three times daily if necessary. When the gluing together of the lids has ceased and the acute effects of expression have subsided, in from 5 to 7 days, the medical treatment begins. This requires in the mildest cases many weeks, and in well developed cases months and even years. He everts the lids once a day and the whole of the conjunctiva of the fornix and palpebral surfaces is gently but firmly and rather rapidly rubbed with a smooth pencil of copper sulphate. Great care must be exercised to prevent the stick coming into contact with the corneal epithelium. This may be accomplished by pushing the lower lid well up over the cornea after everting the upper lid, in which position it forms a protective cushion to this structure. The principle of the treatment is the production of an acute hyperemia and all caustic effect should be carefully avoided. Caustic effects are positive evidence that the applications have been made with undue severity, and in such cases they must be discontinued for a few days. The copper stick should never be used when there is a corneal ulcer, an inflammation, iritis or acute exacerbation, until these conditions have first been allayed. The pain attending the use of the copper stick will ordinarily cease by the sixth or seventh treatment, but daily treatments must be continued. If after they are practically painless a patient stops treatments for a few days, he will be compelled to undergo a similar series of painful treatments before the stick ceases to cause so much pain again. Flushing the eyes with lotions or water should be avoided, the cleansing with pledgets being sufficient.—*J. A. M. A.*, v. lx, no. 8.

Diuretin dilates the small vessels of the heart and kidney, thus improving the nutrition of these organs. It acts well in spastic and

sclerotic angina pectoralis, particularly in association with tobacco heart. It may be well borne for years.

In Eustachian deafness Harold Hays found the tube obstructed in 95 per cent. of the cases, in the other 5 per cent. it was open as the result of atrophic changes; the hearing was worse in the latter class.—*N. Y. Med. J.*, Feb. 15th.

The Action of Salvarsan Upon the Eyes. The grave accidents which have been observed following the use of certain arsenical preparations in the treatment of syphilis made syphilographers circumspect as to 606. Several cases of optic atrophy and other ocular lesions have been published as following intravenous injections of salvarsan. Most of the reported cases show oculomotor and optic nerve involvement. The symptoms not appearing for several weeks after the injection. All the paralyses have been mild and generally have recovered after repeated injections of salvarsan, or iodine, or mercurial treatment. There does not seem to be any atrophy of the nerve or blindness following. Jeanselme and Coutela have observed papilloretinitis during the secondary period after injection of 0.40 gramme of arsenobenzol. Antonelli and Courtois-Suffit published a case of iritis and optic neuritis twenty-four days after an injection. Geronne and Gutmann recite cases when four months after injection the patient developed headache, tinnitus aurium, optic neuritis and hemianopsia. Two more injections did not modify the course of the optic neuritis. It is noticeable that, with rare exceptions, these accidents occur during the secondary period. The question is, are these nerve lesions of the optic nerve or motor attributable to the salvarsan or to the syphilis which was not cured by the treatment. Jeanselme and Coutela do not doubt but that the condition is not medicamentous intoxication but a syphilitic one, as a second intravenous injection of 606 results in cures.

Antonelli and Courtois-Suffit believes the lesions syphilitic in origin because they are usually unilateral and accompanied by other accidents that belong to the secondary stage of the disease, while the nervous lesions following the use of arsenical preparations, as atoxyl and arsacetine, are bilateral. According to Geronne and Gutmann all these accidents may be attributed to a meningeal irritation, cerebral or medullary, so frequent in syphilis. They believe that salvarsan, without having a true toxic action, may have nevertheless a certain neuropathic action which causes some slight alteration in nervous tissue not discernible microscopically. Syphilis thereupon localizes at a point of lowered resistance. This hypothesis seems to be confirmed by actual observations. This leads one to observe precautions before using this drug. The eyes should be carefully examined as to the field of vision, the condition of optic nerve, and the retina and the pupillary reflexes. The question now is, should syphilis cases with ocular lesions be treated with 606. That these lesions have appeared after the use of the drug

does not say that it will not cure them. The fact remains, however, that up to the present the results obtained with mercury have not been surpassed.

The author is led to believe that in oculo-motor and optic nerve lesion 606 is nearly contraindicated. In these cases mercury should be used; however, if mercurial treatment does not produce amelioration of symptoms we should use salvarsan.—*Dr. P. Bailliart, Bull. gen de Therapeut.*—Abstr. in *Hahn. Mo.*

Cases of clinically recognizable **pituitary disease** are at least as common as are cases of clinically recognizable thyroid disease; in fact, there are few subjects in medicine which promise a wider overlap upon the fields of many special workers than this one of hypophyseal disease.

Exophthalmos is rare in the absence of a definite growth. It is presumably a local stasis phenomenon (cavernous sinus?) and bears no clinical relation to a sympathetic stimulation or to an associated hyperthyroidism.

Typical bitemporal hemianopsia with a vertical meridian, which bisects the macula is conspicuously rare.

Homonymous defects (or tendencies) are at least half as frequent as bitemporal ones.

Unilateral amblyopia may occur with very little if any perimetric deviation in the field of the opposite eye. And, what is of perhaps greater clinical significance, mere tendencies toward temporal defects must be carefully looked for, particularly defects limited to the color peripheries.

For Infiltration and Conductive Anesthesia.—Biberfeld found *novocain* produces weaker toxic effects than any hitherto known anesthetic. It is nonirritating and has no peripheral effect on vessels. As to the quantity that may be injected at any one time, this remains still indefinite as there has never been a case of poisoning reported. Braun has used 250 c.c. of a $\frac{1}{2}$ per cent. solution, besides small amounts of a 1 per cent. solution at one time. This represents $1\frac{1}{4}$ grams (practically 19 grains) of novocain. . . . Personally Shields has never found it necessary to use more than 1500-1750 c.c. and has never seen a case of toxemia.—*Lancet Clinic*, March 30, 1913.

Intravenous Anesthesia.—Hayward (*Arch. f. Klin. Chir.*, bd. 94, hft. 4 by *Int. Jour. Surg.*, March, 1913) presents observations based upon 375 cases of intravenous anesthesia in Bier's clinic. It has replaced general narcosis almost completely in operations upon the extremities owing to its reliability and freedom from risk. Novocain in $\frac{1}{2}$ per cent. solution is used in amounts of 30-100 c.c., according to age and sex. Complete anesthesia was obtained in 93 per cent. of the cases.

Operative Surgery of Goiter.—Although the majority of surgeons are using ether, it seems to Marsh that the best results are obtained under preliminary scopolamin and morphia with novocain and adrenalin locally at the time of operation. (*N. Y. State Jour. Med.*, April, 1913.) Regarding the use of straight cocain in these cases, he would not have the courage to employ it. When novocain is seven times less toxic and ten times more anesthetic than simple cocain, the use of the latter is almost inexcusable.

Exophthalmic Goiter.—Jacobson (*Annals of Surgery*, March) supports the claims of those who think disorders of the thyroid gland cause this disease.

BOOK REVIEWS.

MILLER-MERTON VOCAL ATLAS, DESIGNED FOR TEACHERS AND STUDENTS OF SINGING AND SPEAKING. By FRANK E. MILLER, A. M., M. D., Consulting Laryngologist to the New York City, to the St. Francis' and to St. Joseph's Hospitals and to the Loomis Sanitarium, Liberty, N. Y.; late Laryngologist to the Vanderbilt Clinic and to the Metropolitan College of Music; author of "The Voice," and by HOLMES W. MERTON, M. D. Paper, 16 pages, 11"x 8", 25 illustrations, five colored plates, 75 cents. New York: General Agents, G. Schirmer, Inc. 1912.

A unique and beautiful monograph, presenting clearly the muscles, organs and cavities concerned in voice production, more clearly, simply and beautifully than any book on the subject—with which the reviewer is acquainted. The text explains concisely the relative actions of these various parts in such a way that the teacher can not only gain a clear conception but can give the student a grasp of the mechanism without burdening the memory with numerous anatomical names.

Sections of the vocal cords—vocal *valves*—heretofore unpublished, show their prismatic, wedge shape and internal muscular structure on an enlarged scale.

One sees plainly the relation of the nasal accessory sinuses, and letters indicate how the resonance of m, n and ng lies respectively in the anterior, middle and posterior parts of the nasal cavity.

The illustrations enable one to understand how operative injuries, and even loss of mass by tonsillectomy, will disturb the regions structurally and functionally. Many of the "lost voices" from tonsillectomy can be remedied by learning anew how to form and use the voice. Laryngologists will appreciate this brochure, particularly if they are interested in the voice. The colored plates are exceptionally fine.

SOCIAL ENVIRONMENT AND MORAL PROGRESS. By ALFRED RUSSEL WALLACE, O. M., D. C. L. Oxon., F. R. S., author of *Man's Place in the Universe* (1903-4), *Natural Selection* (1870), *Darwinism* (1889), *The World of Life* (1910), *The Malay Archipelago* (1869), *Travels on the Amazon* (1853), etc. Cloth, 8x5¼x7⅞". 181 pages, \$1.25, net. New York: Cassall & Co., Funk & Wagnall's Co., Agents. 1913.

This interesting book is well worth the attention of all thoughtful men and women. Its eminent author, recognizing that the whole system of society from top to bottom is rotten, sees a good omen for the future in the determination of the great body of the more intelligent workers to have justice.

"The total cessation of the action of natural selection as a cause of improvement in our race, either physically or mentally, led to * * * the new science * * * eugenics." Here and there throughout the book the reader may impulsively doubt or deny one of the statements, but will find upon carefully rereading that it will stand criticism. Dealing directly with such social evils as sexual immorality and race degeneration is doomed to failure, he writes, so long as the fundamental causes—widespread poverty, destitution, starvation—are not greatly diminished and ultimately abolished.

Dr. Wallace's remedy, in brief, is that our existing competitive and antagonistic social system neutralizes the laws of evolution as they really apply to mankind and must therefore be radically changed into one of brotherly co-operation and co-ordination for the equal good of all.

LANG'S GERMAN-ENGLISH DICTIONARY OF TERMS USED IN MEDICAL AND ALLIED SCIENCES. *2d edition*, edited and revised by MILTON K. MEYERS, M. D. Cloth, 9½x6x5⅝", \$5.00, net. Philadelphia. P. Blakiston's Son & Co. 1912.

A beautifully printed and bound volume which will be welcomed by those who wish to keep up with German medical, or chemical, literature. The only words intentionally omitted, we learn from the original preface, are those spelt identically in the two languages and in which no doubt is likely to arise as to the gender. In this carefully revised edition 4,400 definitions have been added to the more than 45,000 first published. Corrections are asked for. Of course it does not claim to be complete. Running over the titles on page 380 (July) issue we note that this dictionary does not contain: *Beteiligung*, *Bestrahlung*, *Beziehung*, *Ergebniss* nor *Umfrag*.

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EDITORIAL.

COLLOID SELENIUM TREATMENT OF CANCER OF THE EYE AND ITS ADNEXA.

INSPIRED by Wassermann's discovery of the powerful elective affinity of selenium for cancer cells, treatment of cancer by the intravenous or intramuscular injection of Electroselenium is one of the latest things in therapeutics; it has been published in the *Gazeta Clinica de S. Paulo* (Brazil), Nov., 1912, the *Geneeskundig Tijdschrift voor België*, Nov. 15, 1912, following Dr. A. Blumenthal's paper before the Brabant Medico-Chirurgical Society (*Journal Medicale de Bruxelles*, 1912) and Dr. M. Touche, of Orleans, read a paper on this subject last February before the Medical Society of the Paris Hospitals.

Electroselenium, a coral-red liquid containing or consisting of extremely fine uniform grains of selenium obtained by electric means, is the pure form of colloidal selenium, freed by dialysis from every trace of mineral compound of selenium; it is practically devoid of toxicity, which is pronounced in the mineral compounds of this metal.

Electroselenium is eliminated by the kidneys, part remaining fixed in the elements of new growths, part in the liver and the blood. It seems to increase elimination of urea, uric acid and phosphates. It causes marked leucocytosis if injected into the veins.

The dose is to be calculated from the patient's sensitiveness and the gravity of the lesion; it has been given intravenously 2 to 5 c.c., and even 10 c.c. when well borne, every day or more for awhile, but Wilken and Touche prefer intramuscular injections repeated after about a week of rest according to the aspect of the tumor. In patients gravely affected electroselenium is apt to cause a reaction: shivering, rise of temperature and general discomfort, the more trying the weaker the

patient. The reaction must never be intense enough to weaken the patient, who must always be closely watched. There seems to be no danger of intense reaction after the intramuscular injections, which may vary from 2 to 10 c.c. at intervals from a day to several weeks. Some have had as many as 25 intravenous injections of 5 c.c. every day or two with several days' rest between each series of four or five injections. With some, two injections have sufficed. Of course, the technique is important; if made just outside the vessel severe pain follows and persists for several days. But usually the injection is painless.

The experience of fifteen months shows that appreciable benefit may be expected of this treatment, particularly in cancer of the rectum and of the stomach. It is usually analgesic, improves the general health, arrests if it does not remove or lessen the growth, and softens the cancerous adhesions. The fungosities seem to be changed to hard nodules, or they disappear as after thorough curettage. Hæmorrhage is stopped by thrombosis. Glands disappear or become smaller. If taken early every symptom of the disease may disappear—for as long as eight months if not longer. Surgical intervention is facilitated by this treatment softening or drying up and mobilizing the cancer.

In cancrroid of the cheek and of the nose the ulceration is arrested, incompletely epidermised, the new skin looking fragile and made more healthy. But two cases are given, insufficient for more than encouragement to persevere.

The object of this writing is to call attention to this new therapeutic weapon in order that it may be tried in carcinoma of the eye, ear, nose and throat.

The remedy is made in the Clin Laboratories, Comar & Co., Paris. E. Fougera & Co., New York, the U. S. agents, will furnish literature and samples.

A glance through the latest text-books on eye diseases shows that excision is their uniform advice. Darier, 1910, considers the Roentgen ray for cytolysis and high frequency for cicatrization "the greatest in the treatment of malignant tumors of the face and eyelids." Probably in his next edition he will have something to say about electro-selenium. Roemer, 1913, considers radium and the Roentgen ray unsatisfactory in carcinoma of the lid. Török & Grout, 1913, makes no mention of these agencies. DeSchweinitz, 1913, P. H. Adams, 1912, and Curt Adams, 1909, merely mention cancer of the eye for excision.

None of them seem to have followed excision with the x-ray, as do some American surgeons, to ensure against recurrence; Török and Grout cauterize for this.

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A NEW JOURNAL.

October sees the first issue of the Federation of State Medical Boards' Quarterly, a handsomely gotten up magazine of 95 pages, 10 by 7 inches, edited by Dr. Otto V. Huffman, Albany, N. Y., secretary-treasurer of the Federation and secretary of the New York State Board of Medical Examiners.

The object of the Federation is "to develop and maintain reasonably high and uniform standards of medical licensure in the United States," its official organ is "devoted to medical education and to topics of interest to state examiners, also to the broader questions affecting the relation of the medical profession to the public." Subscription, \$2.00 a year.

Any individual not a member of a state medical board, who is interested in medical education and state licensure may be elected a Fellow of the Federation, with dues of one dollar a year.

While universal reciprocity is utopian this Federation will doubtless be a factor in securing uniformity of state requirements.

C. T. Terry (p. 35) pleads for uniform licensure that travellers should be able to secure medical service in any part of the country "in full confidence that the law has safeguarded them in their temporary place of sojourn as thoroughly as it did in the place of their permanent residence."

The next (the second) annual meeting of the Federation will be held at Chicago, in the Francis 1st room of the Congress Hotel, on Wednesday, Feb. 25, 1914.

TIC DOULOUREUX.

IRA O. DENMAN, M. D.,

Toledo, O.

SURGERY of the trigeminal nerve always presents many difficulties and uncertainties. The procedure is divided into two parts, intracranial or ganglionic and peripheral. The former is so difficult and dangerous as to be always avoided if possible and the latter so seldom successful in affecting cure that the results are often a disappointment. The main factor in producing unfavorable results is the tendency of the nerve to regenerate after section or even removal of it, subsequent to which the patient's condition is fully as bad as before and oftentimes, owing to cicatricial tissue, the pain and distress is even greater than in the beginning.

Operators have devised different means of removing the nerve, the object being to secure as extensive avulsion as possible. Thiersch has devised special forceps for grasping the nerve within the canal and others have proposed different additional measures in order to remove as much as possible. Van Gehuchten believes that in cases of the infraorbital branch, particularly if enough of the nerve can be removed, degeneration of the nerve back to the ganglion is likely to follow.

I wish to report a procedure which I have used in one case but which has not been of long enough duration to claim any definite results; if the society is interested, will report on it yearly and if the nerve regenerates will be glad to make it known.

This case, the patient being a physician friend of mine, began to have tic douloureux in the infraorbital branch of the 5th nerve eight years ago. After numerous attempts by injecting absolute alcohol and osmic acid into the nerve to stop the pain an operation was made, the nerve being severed at its exit from the infraorbital foramen. This gave relief for two years when pain returned with its usual severity. A second operation was made and the nerve was removed for about quarter of an inch in the canal. Relief followed for four years.

In March of this year the patient first consulted me and insisted that I operate him. The operation was extremely difficult due to profuse hæmorrhage. The periosteum was found tightly adherent to the bone

with regenerated nerve fibers spread out beneath it. Periosteum was elevated and the nerve fibers severed by a circular incision around the foramen, then gathered and twisted together and caught by an artery forcep. The nerve sheath was then forced from the canal wall by a very narrow cataract knife back to the turn of the canal, almost an inch. At this point a dentist who had been called in passed a broach an inch and a half into the canal beside the nerve and, after twisting the nerve firmly into the broach, we made traction simultaneously and succeeded in removing one and a quarter inches of the nerve. The patient has made a splendid recovery and has had no pain since. We have hope of relief for five or six years unless the nerve regenerates.

425 Ohio Building.

Eye-Strain and Alopecia Areata.—Five out of six cases of alopecia areata were found to have errors of refraction. Some weeks after commencing to wear corrective glasses the hair over the untreated areas began to grow in a surprising manner. Another patient, with an existing error of refraction, had neglected to use his glasses, and had developed an area of baldness. At Bechet's suggestion he resumed the use of his glasses; the eye-strain disappeared and the patch became filled in with hairs without any other treatment. Bechet believes that eye-strain is at least a contributing factor in many cases of alopecia areata, and he advises that in all cases the eyes should be examined.—*N. Y. M. J.*

Salt and Cataract.—Hypodermatic salt injections caused "a perfectly white cataract" in a frog; this frog completely recovered its sight and had the lens cleared up by immersing it in pure water for a sufficiently long time."—E. T. Allen.

"It is of much more importance to know what sort of an individual has the disease, than what sort of disease the individual has."—Hippocrates.

Cinematograph eye strain is apt to make the patient think that his glasses are again at fault. Cerebral weariness is one of the symptoms.

ALTERATION IN THE TENSION OF THE EYE RESULTING IN THE SO-CALLED CONDITION, GLAUCOMA.

H. D. OBERT, M. D.,

Jackson, Mich.

EXISTING in the realm of the ophthalmologist, there is perhaps no pathological condition to combat so complex, non-responsive to proper treatment and difficult to relieve as the one I mention. In this day of accurate diagnosis there is no excuse for even the general practitioner failing to recognize a case of glaucoma.

The appearance of the pupil in this condition has been responsible for the nomenclature, for it has been stated by authority that the pupillary area has in advanced glaucoma taken on a sea-green hue. This I beg to state is however purely problematical.

I advance the following definition of this peculiar condition:

"A disturbance in the tension of the fluid contents of the globe, the tension—being decidedly increased—resulting in hardness, with a cupping of the disk and a restriction of the field of the vision, with accompanying corneal anesthesia, with a tendency toward total blindness."

The delicate mechanism which controls the balance of normal globe contents as regards tension, is influenced materially by the action of the iris and ciliary body. For convenience I divide the ocular fluids into three classes: (1) blood, (2) lymph, (3) aqueous and vitreous humors. A change in body blood pressure will, one can readily understand, cause instant increase or decrease in eye tension.

Glaucoma exists in two distinct types: noncongestive and inflammatory or fulminating.

Noncongestive or primary glaucoma includes all cases of increased ocular tension not preceded by trauma.

Inflammatory, acute or chronic, is marked by sudden increase in symptoms, which remit or intermit, with increasing severity resulting ultimately in blindness with great pain.

Given ten cases of glaucoma; six will occur in females and four in males. The Hebrew race is particularly susceptible. The black race is seldom represented in statistics. The disease is rare before 40 and

increases numerically up to 70. Heredity plays its part, and predisposing factors are intracranial involvements.

There is much danger in the careless use of mydriatics in the hands of inexperienced persons, and I have no doubt that this factor enters into more cases than may generally be supposed.

Grief, shock, mental worry and exhaustion are causes of an exacerbation. The adhesion of the iris to the cornea caused by a bulging of the lens prevents the outflow of lymph from the corneo-iritic angle. The main avenue of escape for fluid from the anterior chamber is at this angle, from there thru fontana's spaces in the pectoral ligament into Schlemm's canal by filtration, and into the anterior ciliary veins.

A portion of the secretion from the ciliary body passes directly into the vitreous normally; notwithstanding the fact that the blood and lymph are changing tension constantly the ocular tension usually remains the same.

About 50 per cent. of eyes which are glaucomatous are hyperopic; hyperopia is a predisposing factor in glaucoma without question. Haziness of the cornea or a steamy appearance is due to an edematous condition resulting from pressure. If edema has existed for any length of time we are liable to find vesicles or a formation of fibrous tissue underneath the epithelium.

As mentioned before, corneal anesthesia is a common condition met in disturbances of ocular tension. This haziness or steamy condition of the cornea has a tendency to produce halos or rings about lights experienced by the patient which has been attributed to a disturbance in the fundus. It is interesting in this connection to note that this halo or rainbow lights may be produced by the instillation of a solution of the alkaloid of casca bark, the African arrow poison, into the eye.

The anterior chamber in primary glaucoma is shallow owing to a pressure of the vitreous on the lens and capsule from behind. The iris and ciliary body play an exceedingly important role in the course of this disease. The iris being forced forward adheres to the posterior wall of the cornea and a venous engorgement results which tends to distort the iris, so in many instances it appears to lose its identity as far as pigment is concerned. Usually the posterior pigment layer of the iris is not affected. In some instances we find a paralysis of the iritic muscles and a semidilated pupil.

The power of accommodation in glaucoma is seriously interfered with. There is rapid increase in presbyopia, requiring stronger and stronger lenses. Certain reflex changes or disturbances occur in this connection and complicate the accommodating mechanism until it is impossible to refract the patient and vision becomes so impaired that usually all hope is lost. It is indeed deplorable to know that investigators have long viewed glaucoma as a mysterious pathological condition. Why it occurs in one and not in another, what the real underlying causes are, who can explain why iridectomy will relieve in one and not in the other, why one authority deplores operation and even the use of eserine or pilocarpin, others commend it, while another resorts to operation as a last resort.

Schoen, of Leipsic, says that the real cause of the increased tension is the loss of the support of the ciliary muscle and its tendons, thereby permitting the pressure to be exerted directly on the sclera.

A common symptom as diagnosed by the ophthalmoscope—the cupped disk—may be present per se or with other symptoms; but in my opinion a cupped disk is not always diagnostic of glaucoma, for atrophy of the nerve will produce such a condition without an increase in tension. Glaucoma may be stated to be a disturbance of circulation and not a disease proper of the visual organ.

From diagnostic points brought out earlier in this paper, I believe no one can mistake glaucoma when presented. It is certainly not a minor ailment and should not be carelessly passed aside with simple directions for its treatment. From statistics that I can gather I am led to believe that this condition is more prevalent than we dare allow ourselves to believe.

Persistent and aggressive treatment is indicated in any case of this nature. You will say “remove the cause.” This is some easier spoken than executed. I do not desire to present a lengthy discussion of treatment, but a few pertinent facts will outline a proper procedure.

First, it is necessary to secure a good foundation to work on. If your patient is anemic, the proper administration of iron and its salts will usually bring about the desired results. The indicated remedy may be all the medicine needed, depending on the conditions to be met.

Good tonics or alteratives are often indicated and it is advisable to look well into the action of the bowels. In other words secure as nearly as possible a normal physiological action of all the vital organs. Locally the treatment will be more interesting.

What will release the accommodating function? Usually eserine, which can be used safely from one to four grains to the ounce, using proper discretion as to the contraction resulting from instillation of various strengths. Eserine is the alkaloid of physostigma. The best way usually is to have on hand four strengths, using one for control and increasing until the one instillation will last twelve hours.

Pilocarpine (jaborandi) makes a very fine accompanying myotic. It is usually alternated with eserine, is weaker in action and produces the same action on the iris, contracting it. Usually one grain to the ounce is the desired strength for this drug. Supplementing the use of myotics, I am led to believe that the proper use of high frequency electricity is extremely beneficial.

Adrenalin and other suprarenal extracts have been used internally and externally but, statistics thus far state, with disastrous results. The application of heat and cold has been used with good results. Direct injection of the sulphate of strychnine has in some instances preserved vision for years.

Briefly considering operative procedures, I believe without doubt that iridectomy successfully performed will arrest increasing tension and bring about desired results in 60 per cent. of chronic as well as the congestive type. Such operators as Nettleship, Hansell and Knapp & Collins agree that iridectomy is the all-important factor in proper treatment. However, authorities are pretty well divided on operative procedure, and it remains to be seen what will be accomplished yet in this way of treatment.

To illustrate my point relative to glaucoma being a complex, mysterious ocular disturbance, I will cite a case by Dr. Dennis, in *Archives of Ophthalmology*.

Usually the good effect of eserine in lowering eye tension is by myosis. In this case, where the iris and ciliary body are absent, the lowering of the tension certainly was by some other means than by a contraction of the iris, for by test upon discontinuing the drug the tension increased materially, thus further demonstrating that by contracting the blood vessels the same result was accomplished.

While I have not mentioned the use of the tonometer and sphygmomanometer and other blood pressure indicators, I fully realize their importance and the part they play in diagnosis; diagnosis without their use is not giving these instruments credit for the important part they play in determining the tension and blood pressure.

Union Bank Building.

SOCIETIES.

PROCEEDINGS OF THE TWENTY-SIXTH ANNUAL MEETING OF THE AMERICAN HOMŒOPATHIC OPHTHALMOLOGICAL, OTOLOGICAL AND LARYNGOLOGICAL SOCIETY.

Held in the Blackstone Hotel, Chicago, Ill., July 1st, 2d and 3d, 1913.

The first session was formally opened at 11:00 a. m., Tuesday, July 1st, 1913.

PRESIDENT SHEPARD: However small the meeting I trust that those present will take great interest in the papers presented, in what the society stands for and in the influence which this society has over the attitude of each one of its members toward his own profession. Really it is not large numbers only that make for enthusiasm; so during this meeting let us take a keen interest in the proceedings—a real, intelligent interest—and thus further the great art which we profess. If we oppose the thoughts of any paper let us not hesitate to say so in a courteous manner; let us feel that it is not a personal matter. This is a scientific body, it should be devoted to science and not allow personal matters to come in at all. The scientific side of our meeting should be upheld and it can only be upheld by honest, outspoken, impersonal criticism of our proceedings.

The President then appointed the following committees:

- (a) Attendance, E. S. Munson and C. G. Fellows.
- (b) Press, Burton Haseltine.
- (c) Nominations, Geo. A. Suffa, J. M. Patterson, H. D. Schenck, Burton Haseltine and Jas. A. Campbell, being the ex-presidents in attendance.

BURTON HASELTINE: I will accept the appointment on the Press Committee, but I do not think that anything further can be done unless someone gets an introduction to the newspaper people.

R. H. STREET: I move that the program as printed be adopted as the order of business.

GEO. A. SUFFA: It has been customary to make the reading of papers depend upon whether the authors or writers are present or not. That is papers whose authors are present take precedence and then after we come to the end of the program if there is time and the members desire, the omitted papers can then be read. I move as an amend-

ment therefore that we take the papers up, first those whose authors and discussors are present, second those either whose author or discussors are present and lastly, if there is time, those of which both the authors and discussors are absent.

DR. STREET: I accept that amendment and would like to add that paper no. 20 be read before paper 18; it is merely an exchange of place between nos. 20 and 18. Seconded.

THE PRESIDENT: I would remark that the papers are cut down to twenty so that there may be more time for discussion than usual. There has been some criticism made about having papers on the programme and yet not having them read, and it does seem that a man who writes a paper intending to come to a meeting to read it, and is prevented by some circumstance, should have the paper read. With only twenty papers I expect that we will have time enough to read all that are sent. Are you ready for the question? Carried.

The President then called the Second Vice-President, Ella G. Hunt, to the chair in order to read his address.

President's address. (See p. 291, July issue.)

The Vice-President appointed H. D. Schenck, Jas. A. Campbell and W. H. Phillips as a Committee on President's Address, to report at the first session on Thursday at 10:30 a. m.

DR. HASELTINE: I would like to suggest that we vary from our cut and dried customs and discuss the President's address now.

H. D. SCHENCK: I move that its discussion be made a special order of business for 11:00 a. m. on Thursday; the discussion will then come right after the report of the committee. Seconded, carried.

F. C. SAGE: Would it not be well to appoint some censors; I do not think any of those elected are present.

THE PRESIDENT: Yes, that will have to be done; there is one present of those elected, Dr. J. B. S. King. I will appoint F. C. Sage and J. M. Patterson to act as censors with Dr. King.

DR. STREET: Mr. President, may I make an announcement for the local committee? There will be a clinic this afternoon at 2:30 at Hahnemann Hospital. Among the ear cases there will be a case of labyrinthine disease demonstrated by Dr. Mackenzie; there will be several eye cases and several nose and throat cases. (The speaker then gave careful instructions how to reach the hospital.) Tomorrow there will be a combination informal dinner and smoker at the Chicago Yacht Club at the foot of Monroe Street. The expense of the dinner

and smoker will be \$3.00. I would like to know as soon as possible how many are intending to go, so that the chief may know what preparations to make. The program this evening will be carried out here.

DR. SCHENCK: We should have a treasurer pro tem. in the absence of Dr. Cross.

THE PRESIDENT: I have asked Dr. Suffa to act in that capacity and he has consented. In the place of the Secretary, Dr. MacMullen will act until he arrives.

DR. SUFFA: I am ready to relieve the members of their surplus cash.

THE PRESIDENT: I would say that it relieves the Treasurer of a good deal of work to have as many members as possible pay their dues at the meeting. I hope that you will keep this in mind. Adjourned.

SECOND SESSION—TUESDAY, 2:30 P. M., JULY 1ST—AT HAHNEMANN HOSPITAL.

1. Cataract—Operation by C. G. Fellows; some vitreous lost, but successful.

2. Second Case—Exhibited; no operation.

3. Labyrinth Case—Examination demonstrated by Geo. W. Mackenzie.

4. Case of Strabismus—Operated by Geo. A. Suffa.

5. Case of Strabismus—Operated by Geo. A. Suffa.

6 and 7. Tonsil operations by F. B. MacMullen and H. A. Foster.

THIRD SESSION—8:00 P. M. TUESDAY, JULY 1ST.

Paper No. 1.—Chronic Ethmoid Disease and Its Relation to Asthma, by Burton Haseltine, Chicago, Ill.

Discussion by Harold A. Foster, L. E. Hetrick, E. D. Brooks, G. A. Mackenzie, J. R. McCleary, W. H. Phillips, I. O. Denman, Jas. A. Campbell and the President.

Paper No. 6.—Packing the Tonsillar Fossa After Tonsillectomy to Prevent Hæmorrhage, by F. B. MacMullen, Ann Arbor, Mich.

Discussion by F. C. Sage, L. E. Hetrick, E. J. George, E. D. Brooks, Alfred Lewy, I. O. Denman, G. W. Mackenzie, Burton Haseltine, F. B. MacMullen and the President.

Paper No. 7.—The Need of Early Treatment in Fracture of the Nasal Bones, by Harold A. Foster, New York.

Discussion by L. E. Hetrick, J. I. Dowling, E. D. Brooks, W. H. Phillips, F. C. Sage, G. W. Mackenzie, Harold A. Foster and the President.

Paper No. 3.—(Read by the Secretary), Therapeutics of the Throat, by Chas. E. Teets, New York.

Discussion by L. E. Hetrick, Carl H. Rust (read by Alva B. Sowers), E. D. Brooks, J. I. Dowling, Burton Haseltine, W. H. Phillips, G. W. Mackenzie, J. R. McCleary, and the President. Adjourned.

FOURTH SESSION—WEDNESDAY, JULY 2—10:00 A. M.

Paper No. 8, Lip-Reading Taught to Adults, by Miss Gertrude Torrey, Chicago.

Paper No. 9, Methods of Teaching Lip-Reading to Children, with Demonstrations, by Miss Mary McGowan, Chicago, Ill.

FIFTH SESSION—2:30 P. M.—WEDNESDAY, JULY 2.

Paper No. 11, Progressive Myopia, by C. G. Fellows, Chicago, Ill.

Discussion by H. D. Schenck, F. C. Sage, G. W. Mackenzie, F. H. Boynton, Jas. A. Campbell, E. J. George, E. T. Allen, W. H. Phillips, Geo. A. Suffa, C. G. Fellows and the President.

The following resolution was offered, read by the Secretary:

WHEREAS, There exists in the public schools of our country a policy of increasing the amount of close work required in the primary grades as well as in the more advanced, and

WHEREAS, Excessive use of the eyes for close work in childhood tends to induce a condition of progressive myopia and other ocular defects; be it

Resolved, That the American Hœmœopathic Ophthalmological, Otolological and Laryngological Society hereby places itself on record as condemning such increase of close work, particularly in the lower school grades, and as recommending the substitution of blackboard exercises for text-book and written work.

Paper No. 13, Ophthalmic Hospital Reports, by W. D. Rowland, New York.

Discussion by M. A. Barndt, F. B. MacMullen, W. H. Phillips, W. D. Rowland and the President.

Paper No. 14, Some Effects of Accommodation Upon Ocular Coordination, by Geo. A. Suffa, Boston, Mass.

Discussion by R. W. Homan (read by the Secretary), E. J. George, G. W. Mackenzie. Adjourned.

SIXTH SESSION—INFORMAL DINNER AND SMOKER; not reported.

SEVENTH SESSION—THURSDAY, JULY 3D—10:00 A. M.

SECRETARY'S REPORT.

In accordance with time honored custom the Secretary reports the usual business of this office transacted during the year just closing. The Transactions of the last meeting were published and delivered to the members about April 1st. The programs for this meeting were reprinted from the official journal and mailed to the members about the middle of June.

There are one or two matters that I think might well be considered at this meeting: First, the matter of when and where our meeting shall be held. It would seem that this should receive official consideration. Last year, when it was announced that the Institute would meet in Denver, a protest among the members of this society arose as to this location, insisting that it was too far away and that it did not possess attractive features sufficient to warrant meeting so far west; this sentiment however was not unanimous but seemed to come largely from the membership east of Michigan and Ohio. Many of the western men and some of the eastern were of the opinion that this society should meet at the same time and place as the Institute for the general good of homœopathy. We have been seriously criticised by a number of the Institute members not belonging to this society for what they termed a "selfish act" in cutting the Institute meeting this year. As an advocate of the law of homœopathy, and a believer in the old adage that "in union there is strength," I am convinced that this society should vote to hold its meetings at the same time and place as the Institute and I offer it as a recommendation that we do so.

The second matter of which I wish to speak is that of correspondence received from Dr. Thomas A. Storey, Secretary General of the Fourth International Congress on School Hygiene, which is herewith appended and in which the Society is invited to appoint delegates to attend the forementioned congress which convenes in Buffalo, August 25 to 30, 1913, under the patronage of President Woodrow Wilson. I recommend that such delegates be appointed.

Third, a communication from the Merchants' Association of New York in which the society is cordially invited to hold its next meeting in that city. The invitation is appended herewith as a part of this report.

The society is greatly indebted to our President this year for his faithful activity in the accumulation of material for this program.

It has been his desire to make the meeting one of scientific interest rather than of tedious length; how well he has succeeded you are able to judge by the valuable material you find in the program.

Fourth, at the suggestion of a number of members of this society the Executive Committee felt that we should be an independent organization and defray the necessary expenses of our own entertainment wherever we might meet; accordingly the Chicago members were invited to permit each member to pay for his own plate at the banquet and that the society be permitted to pay for such other expenses as might be found necessary and not covered by the banquet charges. I recommend that this be made a regular rule of this society and that hereafter the local profession be requested to incur no expense upon themselves for our entertainment.

Respectfully submitted,

DEAN W. MYERS,
Secretary.

C. G. FELLOWS: I move that the report be received and the recommendations now considered. There are plenty of records to show that we are committed to meeting with the Institute whenever it is possible to do so. When they meet in an accessible place we meet with them, but we would have a poor meeting if we tried to go to Denver with them. I would rather be in favor of letting the matter stand as it is; it would not be wise to have a permanent resolution passed that we must meet with them always.

PRESIDENT SHEPARD: Yes, I remember that the subject was very thoroughly discussed at former meetings.

H. D. SCHENCK: This is a matter that might make our meetings utter failures; the Institute has partly pledged itself to go to the Pacific coast in 1915. It would be poor policy for us to try to have a meeting there; we would not have twenty members present.

A. S. HANSON: I move that we abide by the rule that we now have. Seconded. Carried.

SECRETARY MYERS: It would be a good thing to appoint delegates to attend the Fourth International Congress of School Hygiene which meets at Buffalo, August 25th to 30th, of this year. It might be possible to appoint someone living in the neighborhood.

DR. SCHENCK: I am going there anyhow. Dr. H. S. Weaver is also going.

F. C. SAGE: I move that Drs. Schenck and Weaver be appointed as

delegates, with Drs. Arndt and Dowling as alternates. Seconded, carried.

THE SECRETARY: I have a letter from the Merchants' Association of New York in which they invite us to hold our next meeting in New York.

DR. FELLOWS: I move that the matter be referred to the Executive Committee. Seconded, carried.

THE PRESIDENT: The next recommendation of the Secretary is that we be self-entertaining and not put the expense upon the local profession where the meeting is held. It was duly moved, seconded and carried that this recommendation of the Secretary be adopted.

Moved, seconded and carried that the report of the Secretary be accepted.

TREASURER'S REPORT.

Receipts.

Reported balance cash on hand, Pittsburgh, Pa.,	
June, 1912	\$479.92
New members, initiation and dues	45.00
Dues, old members	501.00
Rec'd from sale of book: Reproving of Belladonna..	10.00
	—————\$1,035.92

Expenditures.

L. E. Haidt & Sons, Pittsburgh, Pa., Painting signs	
for use at meeting	5.00
Cigars for smoker	2.75
J. B. S. King—services as official stenographer	100.00
Geo. A. Suffa—for expenses of Drs. Greene and	
Millette, at Pittsburgh	30.00
Ann Arbor Press—Printing for Secretary	5.00
Journal of Ophthalmology, Otology and Laryn-	
gology	25.00
Achey & Gorrecht—Expenses of Transactions:	
Expressage and printing for year 1911 and 1912..	201.96
Expressage and printing for year 1912 and 1913	206.13
Chas. L. Clark—Printing for Treasurer—\$2.25 and	
\$5.75	8.00

Riverside Press—storage of book, Reproving of Belladonna	5.00	
Albert E. Cross—postage, printing and Stenographer	32.60	
		<hr/> \$621.44
		<hr/> \$414.48

Assets.

Cash on hand	\$414.48	
Dues in arrears	234.00	
		<hr/> \$648.48

Liabilities.

Expenses of Secretary for 1913—unestimated.		
Official Journal.	25.00	

Total membership	195	
Resignations to date	3	
Reported deaths during the year	2	
Members in arrears	50	
Back dues owing	\$234.00	
29 members owing each	3.00	
14 members owing each	6.00	
7 members owing each	9.00	
Members in good standing, June, 1913.....	188	

The Treasurer has to report the following members who are three years in arrears and have refused to honor sight drafts sent June 16, 1913:

Ellsworth Huff, 113 E. Market St., Warsaw, Ind.
 F. J. Newberry, Wright & Callender Bldg., Los Angeles, Cal.
 Rob't L. Piper, 1225 Logan Ave., Tyrone, Pa.
 Frank A. Seemann, 622 4th St., Sioux City, Iowa.
 Thos. M. Stewart, 605-6 Traction Bldg., Cincinnati, O.

Deaths.

John B. Palmer, 21 E. 24th St., New York.
 Chas. E. Myers, 170 Green Lane, Philadelphia, Pa.

Resignations.

Oscar Seeley, 318-319 Perry Bldg., Philadelphia, Pa.
 Emma L. Boice-Hays, cor. Monroe and 23d Sts., Toledo, O.

J. B. Gregg Custis, 912 15th St., Washington, D. C.

Respectfully submitted,

ALBERT E. CROSS.

July 3, 1913.

The above report is correct.

CHAS. E. ALLEN,
HAROLD A. FOSTER,
Auditors.

PRESIDENT SHEPARD appointed E. T. Allen and H. A. Foster as auditing committee.

H. D. SCHENCK: I think that it would be well if those in arrears were taken up by friends and interviewed to see what the matter is.

C. G. FELLOWS: I will take up Newberry's case and also Stewart's. For the others I suggest that the regular rule be applied by the treasurer; I so move. Seconded, carried.

THE PRESIDENT: As Dr. Beebe is not here we can have no necrologist's report to-day. After that comes the Report of the Board of Censors.

F. C. SAGE: The following doctors have fulfilled all the requirements and are recommended as members: W. D. Rowland, E. T. Allen, J. E. Guy, T. W. Stephens, George Mosby. On motion, these were duly elected to membership.

Voted that all who have applied for membership but have failed to pay initiation and dues be declared elected upon completion of these requirements.

THE COMMITTEE ON ATTENDANCE

reported forty members as attending the meeting and suggested that those in attendance be distinguished by some mark in the list of members in the annual transactions. Report accepted and recommendation adopted.

SECRETARY MYERS: I am reminded of the death, in June, 1912, of one of our members, Charles G. Jenkins, of Lansing, Mich. At the time of his death he was Secretary of the Michigan Homœopathic Medical Society. On account of much ill health he was never much in public life, but was loved by the community in which he lived. He died rather unexpectedly from intestinal cancer; his sudden death was a shock to the Michigan profession. It would be well to pass suitable resolutions.

DR. FELLOWS: I move that the Secretary be instructed to draw up suitable resolutions for the society and send them, with a letter, to the widow. Seconded, carried.

F. C. SAGE: The committee appointed on the resolution offered yesterday and discussed after the reading of Dr. Fellows' paper reports in favor of its adoption as read by the Secretary.

DR. SCHENCK: I am no more in favor of this resolution than I was yesterday. It is without good reasons. I believe that the school authorities are giving their best attention to this subject nearly everywhere in the land. We have had no expert advice about it, we are not sure that it is needed; we should investigate the matter before passing a condemnatory resolution. If we do find abuses after investigation then let us do something worth while. Let us appoint a committee and find out what the real facts are before acting; the action would then have some weight.

E. T. ALLEN: Is this society not composed of experts? Have we not spent years and years in investigating eyes of school children and of others? Have not our whole attention and interests been in that direction? Are not we in a position to know? I maintain that we are; it would not be hasty action. I heartily approve of the resolution.

DR. SAGE: I believe that we do know about this subject; if we do not know now we will never know about it. It is a matter of common knowledge that there is a tendency in the schools to give too much fine work to the pupils. I know what the teachers and superintendents do at their association meetings: each fellow will tell and boast how he makes the children of eight years make a certain grade in a short time. He does not ever mention or think of the effects upon the eyes. His object is a different one entirely. We are all paying more attention to conservation now than in former times: forests are being conserved, water is being conserved, why should not we specialists be in favor of conserving the children's eyes as far as possible? The resolution does not condemn anybody in particular. It simply puts us on record as being in favor of conservation. The report of the committee favoring the resolution was adopted.

The Committee on Nominations reported as follows:

President, J. Ivimey Dowling, Albany, N. Y.

First Vice-President, Edgar J. George, Chicago, Ill.

Second Vice-President, J. R. McCleary, Cincinnati, O.

Secretary, Dean W. Myers, Ann Arbor, Mich.

Treasurer, Albert E. Cross, Worcester, Mass.

Necrologist, R. H. Street, Chicago, Ill.

Censors :

L. E. Hetrick, New York.

I. P. Metzger, Tyrone, Pa.

F. C. Sage, Waterloo, Ia.

E. S. Munson, New York.

C. E. Allen, Kansas City, Mo.

Report of the committee adopted.

PRESIDENT SHEPARD: The report of the Committee on the President's Address is now ready. If Dr. Ella G. Hunt will take the chair we will hear it :

REPORT OF COMMITTEE ON THE PRESIDENT'S ADDRESS.

We recommend the address of the President to the members for careful perusal and thought. It points the way to more ideal society work, if not in the direction your committee deems wisest, at least toward something which will give the basis for action in years to come.

We realize thoroughly that leadership in any change of the society's work devolves upon the Executive Board, of which the President is the leader. We therefore give to the suggestions of the President careful thought regarding any changes he proposes.

The President has said, and we most thoroughly commend the statement, that a large attendance, a reasonable number of papers and a large amount of material of a practical nature which our members can take home make a satisfactory meeting. Whether this exchange of personal experience—failures and successes—does not form as good or a better basis for the meetings of this society than the more theoretical papers dealing with the abstruse theories of disease with a scientific explanation of their cause and effect is, of course, open to debate. Your committee is decidedly of the opinion that the attendance will be better and the interest deeper and more sustained if greater emphasis is kept on the practical and utilitarian character of our papers and discussions.

In the judgment of your committee, we can add to the "sum of human knowledge" as well, if not better, by pointing out to our confrere something which we ourselves do perhaps better than he, while he likewise gives from his experience something that will increase our

efficiency. The demonstration of a new technique in some well known procedure will add as much to the sum of human knowledge as the devising of something entirely new.

We are thorough accord with the statement that one of the greatest results to be obtained from our meetings is the inspiration and enthusiasm to do better work acquired from personal contact and conversation with our confreres. The President truly says: "If we are to justify our existence we must see that every meeting inspires us to be better physicians, better homœopaths and better specialists. Our patrons must see us newly inspired after each annual meeting, more keen of observation, more optimistic as to our powers, more resistant to the deadening influence of the humdrum of practice."

The President has laid down the following propositions which we commend:

1. "That we are physicians, privileged yet bound by all those high standards which have been our birthright through the centuries and are now voiced in our codified ethics.

2. "That we are *homœopathic* physicians, who have an immense advantage in our ability to handle many diseases by therapeutic measures."

Regarding this second statement, your committee is unanimous in feeling that the only justification for this society's existence is its homœopathic therapeutics. Further, that our Executive Committee should be instructed that every meeting of this society has by a standing resolution to see a part of its program devoted to reports upon the uses of homœopathic remedies and the confirmation of symptoms which apply to our specialties. Every member can bring to the society each year one or more cases where a homœopathic remedy has been used singly in a case and produced results which were gratifying and seemed curative beyond dispute.

We do not feel, however, that these statements of a single man should be accepted without being verified in the various special clinics under the control of the members of this society. Your committee, therefore, suggests that the reports be referred to a special standing committee which shall arrange to have the remedies tried under the same conditions and with the same indications which the reporter gave to the society. Such verifications as have been made before the next meeting shall be reported to the society and only such verified reports be published. This, it seems to your committee, will give a breathly

added value to our symptomatology and inspire our members to more confident and frequent use of our remedies.

Not only should this apply to homœopathic therapeutics, but to other new measures and therapeutic suggestions. We feel that all presentations to the society should combine so far as possible ethical and scientific statements having a *practical* value.

Finally, when we look back over our history from the beginning of our society to the present and consider the character, tone and practical value of a very large majority of the papers presented, it is our opinion that the society has been and is an unqualified success. That its work is susceptible of improvement we of course admit, but we further realize that we cannot, except in a limited way, control the contributions of individual members.

While the papers presented have great interest to the members present, their true value and vital worth become more apparent from a careful perusal after they are published, when they become the property of our whole membership. This of course assumes that the members who were not present shall have the benefit of an accurate and full report of the discussions presented at the meeting.

While there is a limit to the number of papers which it is practical to present in a three-days' meeting, we must not lose sight of the fact that we have among our members those who are not exclusivists and that a great variety of subjects discussed must prove a greater attraction to our membership and enhance the value of our discussions, which we feel ought never to be curtailed. Your committee feels that this can never be accomplished until your Executive Board insists that the papers be in hand at least three weeks before the meeting, so that the best equipped man can be given proper time to prepare for an opening discussion. While our society undoubtedly should not be entirely satisfied with recounting routine experiences, we feel that to go far afield from the practical papers and discussions would be a step in the wrong direction.

A committee such as the President suggests for carrying and fostering individuals in a line of original investigation should probably be commended and will result possibly in contributions in future time that will be to our credit and advancement.

H. D. SCHENCK,
JAMES A. CAMPBELL,
W. A. PHILLIPS,
Committee.

F. C. SAGE: I move that we take up such recommendations of the report as we desire and discuss them. Seconded, carried.

H. D. Schenck then read the first recommendation as follows:

1st. That the Executive Committee should be instructed by a standing resolution to see that at other meetings of this society a certain time be devoted to reporting on remedies and the confirmation of symptoms, which apply to our specialties. Adopted.

2d. Single man statements should not be accepted without being verified in special clinics under the control of this society. Statements of that kind should be referred to a standing committee who shall arrange to have the statements as to the effect of a remedy tried out under strict conditions and when they have been verified they should be published and not before.

THE PRESIDENT: Are we to understand by that all papers are to be referred to this committee before publication?

DR. SCHENCK: No, this does not refer to papers but to statements in papers as to the effects of certain remedies. For instance several years ago a member claimed that he had cured syphilis with mercurius 6x. We want to find out whether that is true or not before we permit it to go into the Transactions. If not true we can throw the statement into the waste basket.

DR. MACKENZIE: That is a stringent rule and very difficult of application. A doctor may report a case with certain symptoms which sulphur cured; another doctor may report a similar case, with the same diagnosis, and it was cured with bryonia. It is impossible to get exactly the same conditions. It is going to be difficult to apply.

A. S. HANSEN: I think the same. It would be well to limit the application of that rule to the new remedies that are being adopted so easily, like salvarsan and neosalvarsan. Such a rule is not necessary for our well known remedies.

THE PRESIDENT: Such a committee as spoken of would need to have a certain latitude. It would have to be composed of men who are homœopaths and also gifted with common sense. They would have to use judgment when it came to verifying a symptom and to understand that a case apparently similar may not be at all similar homœopathically speaking. Without that it could not be done and a large number of our best reports would go to the waste basket.

DR. MACKENZIE: I am opposed to the adoption of this resolution because it interferes with a man's freedom. For instance, Jones may

be a good prescriber and cure a patient with sulphur; we do not believe it until we have tried to repeat the result in a case under our control—clearly an impossible task.

DR. SCHENCK: That is not the point: we are not to journey to Jones' town and verify his case; if Jones reports a case here cured with sulphur, instead of being accepted it is to be taken up by the committee to see if they can verify the indications as given.

DR. MACKENZIE: That is the secret of homœopathy. It is too elusive for a committee to decide for or against.

D. W. WEAVER: When a paper is read before this society the society does not necessarily O. K. that paper. The papers read here are taken for what they are worth and are subject to criticism, approval and disapproval. If we wait to have everything approved by a committee we will not get on at all.

DR. MACKENZIE: I would go so far as to favor having a board of censors to censor papers before the annual meeting and where a paper is absolutely rank to reject it so that it will not be read and, of course, not printed in our Transactions. We have had papers presented which we should not feel proud of. When the Secretary and other officers are asking for papers they are doing so because they are under the necessity of getting up a program. They ask men who they know are working on a certain line or who are proficient in a certain line and that is well, but if it was understood that all papers must be submitted to a board of censors before being read, it would tend to make writers careful. A censorship like that I would approve of but when it comes to the application of a remedy depending upon symptoms, often subjective, we would have no right to throw such a report out on the ground that the cure cannot be repeated in a clinic under the control of the society.

SECRETARY MYERS: If you will allow me I will read from the by-laws something that seems to me to cover the ground: "The regularly chosen officers of this society shall constitute an executive committee, which shall arrange the business of the session, act as a committee of publication, attend to matters of business not otherwise specially provided for, and perform such other duties as may, by vote of the society, devolve upon them." It seems to me that "acting as a committee of publication" involves the idea of censorship.

DR. MACKENZIE: Then the officers have fallen short of their duties in times past, because I can recall papers that have been read here

and printed that were almost wholly plagiarism. There was no original work in them; I can produce the evidence of it.

DR. SAGE: We are wasting time. All papers read before this society are subject to criticism and are criticised in the discussion that follows the reading. If a paper is read here that is plagiarized it is the duty of anyone who knows the fact to bring it out in the discussion. This is the place in open meeting to discuss things and not in a secret committee. The recommendation would limit free speech. A paper might be brought here that would count as a whole very poor but there might be some little point in it of exceeding value, or the paper might be poor and the discussion of it very valuable. The committee would throw out such a paper and we would lose the valuable point or the valuable discussion.

DR. SCHENCK: *Materia medica* stands upon a different basis from the scientific subjects of our specialties. Our *materia medica* has too long been unscientific and needs verifications; we have got to have innumerable verifications before we can go before the world and declare our belief with enthusiasm. To an outsider our position as homœopaths would not be scientific. I think that we should take a stand so far as *materia medica* goes. All we propose to do is to take up certain cases that seem to need investigation and if the cure reported is true we want to know it and to verify it. Of course the committee must use common sense.

THE PRESIDENT: We meet as a society of homœopathic specialists but it is a matter of common knowledge that most of us are very poor homœopathic prescribers. It is easy to give aspirin to relieve pain and much more difficult to find out the homœopathic remedy required, but if we did so our success would be much greater. It is bad for the younger men to come in and see us using so many allopathic expedients. I think that if we had a reputation for carefully looking into the effects of homœopathic remedies in a dispensary or clinic under our own control it would be in favor of our homœopathic reputation. If it were known that we keep careful records, try remedies in a clinic and show an interest in *materia medica* would it not benefit each member and tend to make him more careful himself. I do think that this recommendation followed would not restrict a man's rights at all. Its object should be to stimulate interest in *materia medica* not to cripple it.

DR. SAGE: Do you think that we could get a committee to do the work?

DR. SCHENCK: I think that if this committee was considered to be doing a work of verification and not of censorship it might be more favorably received.

DR. MACKENZIE: A man may report a cure with sulphur or some other remedy but it will not be received until some people in New York who do not probably know as much about materia medica as he does, verify it. Recommendation adopted.

DR. SCHENCK: The third recommendation is that other therapeutic methods, such as electricity, reported here be referred to the same committee. Adopted.

DR. SCHENCK: The fourth is that our Transactions and reports should be very full and accurate.

THE SECRETARY: It seems to me that our reports have been both full and accurate.

DR. SCHENCK: There have been some complaints.

THE SECRETARY: All the papers are published and the stenographer takes down just what you say; the trouble is that people do not say what they intend to and when they see it in print do not like it.

DR. SCHENCK: The fifth and last recommendation is at the suggestion in the President's address that a committee be appointed to have fraternal care over subjects for contributions, pointing out subjects that need investigation urging new work and original work upon members capable of doing it.

PRESIDENT SHEPARD: I meant that the society should consider a practical paper in a different light from one which dealt with original scientific work. It might be some years before a paper would be presented but when such a paper does come it should have honorable mention or be otherwise distinguished. The society ought to take note of it. There is a great difference between the papers ordinarily presented here and those which deal with original investigations. It is not intended to have all the papers attempt original work because that would be impossible, but we should make a greater stand for original work and we can do that by recognizing it when it comes before us. Do something new, not simply because it is new but because it is something worth while and also new at the same time. A paper that is worthy and new is of more value than a paper that is worthy and old. Dr. Cross has a friend who is professor of physiology at the Clark University. I asked him if he would take up with his friend the subject of color vision. I thought that Dr. Cross being able himself

and being associated with a scientific physiologist would produce something of great value and worthy of our attention. They did begin, but the professor was called away to some other institution of learning at another place and the opportunity was lost. If we had a standing committee to look up such subjects and start someone at the work it would redound to the interest and value of our meetings. That was the idea I had in suggesting it.

DR. MACKENZIE: Would there be a medal or only honorable mention? Adopted.

Moved that the report of the Committee on the President's Address be adopted as a whole. Seconded, carried.

ALFRED LEWY: I was requested to bring Dr. Shambaugh's illustrations and specimens of the labyrinth and have done so, but Dr. Shambaugh, although he had postponed his vacation to be here, was compelled to put off his visit and cannot be with us to-day. So we will have no opportunity to express our feelings. The work is one for which he received a prize in the last two years. It would be a graceful act to express our thanks and appreciation of his acceptance of our invitation which he gave so readily and in good faith. I would therefore move that the Secretary or President be appointed to write a letter expressing our feelings in the matter to Dr. Shambaugh. Seconded, carried.

Paper No. 12, Therapeutics of the Eye, by Chas. H. Helfrich, New York, read by Dr. Munson, discussion by Chas. H. Hubbard read by the Secretary.

Discussed by F. C. Sage, the President, Geo. A. Suffa.

EIGHTH SESSION—2:30 P. M.—THURSDAY, JULY 3D.

Paper No. 20, Tuning Fork Tests, by Alfred Lewy.

Discussed by W. H. Ballinger, Geo. W. Mackenzie, George McBean, and Alfred Lewy.

Paper No. 19, Labyrinthine Tests, by Geo. W. Mackenzie.

Discussed by Geo. McBean, Alfred Lewy, Geo. A. Suffa, W. H. Ballinger, and G. W. Mackenzie.

Paper No. 15, Cataract Extraction in the Capsule, by Dean W. Myers, Ann Arbor, Mich.

Discussion by J. I. Dowling, Burton Haseltine, C. G. Fellows, Wm. Muncy (read by Alva B. Sowers) and D. W. Myers.

Paper No. 18, Therapeutics of the Ear, by E. S. Munson, New York.

Discussion by F. C. Sage, J. I. Dowling.

The President announced the **Committee on Verifications**: H. D. Schenck, E. J. George and Geo. A. Shepard; also the **Committee for looking up subjects and original work**: I. O. Dennon, W. H. Philips and Geo. W. McDowell.

H. D. SCHENCK: I move the adoption of the following: Resolved, That it be the duty of the Executive Committee to provide as part of the program of every meeting a number of reports on the verifications of homœopathic remedies. Seconded, carried.

THE PRESIDENT: Before adjourning I want to thank the members whose work has made this meeting a success and also particularly the local committee for their splendid work. We will give a vote of thanks to the hotel and its management. The Secretary deserves special mention, for he did more than his real duty and I want to thank him publicly for it. We will consider these all carried. On motion, adjourned.

CLINICAL CONGRESS OF SURGEONS OF NORTH AMERICA.

Fourth Annual Session, Chicago, November 10 to 15, 1913.

Dr. Casey Wood, Chairman of the **Section of the Congress on the Surgery of the Eye, Ear, Nose, Throat and Oral Cavity**, announces a series of operative clinics especially arranged for the large attendance of surgeons that will undoubtedly be present at the approaching annual session. In the amphitheaters of the hundred or more hospitals and dispensaries of Chicago several hundred surgeons can be accommodated so that it will be possible to give all an opportunity of seeing the important operations already scheduled in the preliminary program.

As is well understood, it is not possible for more than a limited number of spectators to view the details of the majority of operations done on the eye and neighboring organs. This drawback is largely the case in all surgical procedures, but it is probably more pronounced in the measures undertaken by the operators in this section. The Committee is well aware of this difficulty and is making a special effort to overcome it. They propose to adopt such devices as will give the largest possible number of visiting surgeons the best view of the operative field. It is also the purpose of the Committee to correlate operating hours with hospital localities in such a manner as to utilize to the utmost the time at the disposal of members. To this end it will

be imperative not only that admission to clinics be by ticket but that this rule be strongly followed. Overcrowding of an operating room always means that no spectator gains an unobstructed or useful view of the work that is being done. The exact mode of distributing tickets will be announced later; it may here be said that it will be a case of "first come, first served."

Lieutenant-Colonel Elliot, F. R. C. S., will demonstrate his method of using the corneal trephine for the relief of glaucoma and, in all probability, a number of other distinguished foreign operators will participate in the actual work of this section of the Congress—all of which will be announced in the completed program. Meantime, surgeons who practice one or more of the specialties of this section are invited to be present and to benefit not only by attendance upon the clinics but by listening to the following papers on the evening program:

Operations on the Extraocular Muscles. By Dr. Edward Jackson, Denver, Colo.

Sympathetic Ophthalmia. By Dr. Harold Gifford, Omaha, Neb.

The Surgical Treatment of Suppurative Labyrinthitis. By Dr. Philip D. Kerrison, New York.

The Indications for the Radical Mastoid Operation with the Steps Essential to Successful Healing. By Dr. F. Whiting, New York.

The Surgery of the Faucial Tonsil as It Relates to the Functions of the Tongue and Soft Palate in the Production of Voice. By Dr. G. Hudson-Makuen, Philadelphia.

Peridental Infections, Their Relations to Neighboring Organs. By Dr. V. P. Blair, St. Louis, Mo.

Complete lists of operators with places, days and hours of their clinics in Section of the Eye, Ear, Nose, Throat and Oral Cavity will be announced later.

"**World Form**" has been adopted by a number of international organizations publishing their documents, monographs, etc., in uniform size, 22.6x16 centimeters (9"x6 5/16"). It is thought by some that adoption of the World Form has a future comparable with that of the adoption of an international auxiliary language.

Tubercular vs. Tuberculous.—"In careful writing the term tuberculous should be applied when one desires to call attention to the fact that the tubercle bacillus is the cause of the tubercle. The word tubercular simply means that tubercles are present." "Correct expression is essential for the exact exposition of one's ideas and ideals."—Editorial, *Med. Rev. of Rev.*, Aug.

HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

DEPARTMENT EDITOR, PHILIP RICE, M. D.,

San Francisco, Cal.

“In the absence of mechanical lesions in the nose, I do not know of anything that responds better to the homœopathic remedy than does **hay fever**.”—PHILIP RICE, M. D.

Strabismus from brain irritation or inflammation—Bell., Hyos., Stram.; from worms (intestinal irritation)—Cina; from teething, weak internal recti—Alum.

CIMICIFUGA—*Actæa racemosa*.

Objective.—Mydriasis. Eyes congested during headache.

Subjective.—*Aching pain in the eyeballs; between the ball and the orbital plate of the frontal bone; exteriorly backward through base of brain to occiput. Pain from eyes to top of head.*

Vision.—Dark spots.

Characteristics.—Myalgia. Spinal irritation. Heat on vertex. “Top of head will fly off.”

Clinical.—Asthenopia and ciliary neuralgia, particularly when *reflex from the uterus, ovaries or spine*.

CHINA. *Cinchona officinalis*.

Objective.—Whites of eyes yellow. Lacrimation.

Subjective.—*Pressure in eyes. Photophobia. Motion of eyes painful with sense of mechanical hindrance. Crawling pain in eyes and inner surface of lids, with lacrimation. Neuralgic pains in or about the eyes.*

Vision.—*Dim.*

Characteristics.—ANÆMIA. *Nervous erythism with debility. Tinnitus. Vertigo. Deafness. Headache. Indigestion.*

Clinical.—Nyctalopia (night blindness) from anæmia. Neuralgia. Leucocythæmia. Loss of tone, there may be periodicity. Not often called for in ocular therapeutics, except when the eye condition is *due to loss of vital fluids* or to malaria.

CINNABAR. Mercuric (red) sulphid.

Objective.—Redness of the whole eye.

Subjective.—*Pains from inner to outer corner of eye in the bone around the edge of the orbit, usually above but sometimes below. Pain from lacrimal duct through brow to temple or ear. Drawing sensation from right inner canthus across the malar bone to the ear. Shooting pains in right inner canthus, with burning and itching. Aching sore-*

ness in the eyes, *worse evening*. Weakness and sleepiness in the eyes about noon, could scarcely keep them open.

Clinical.—An important remedy in various forms of blepharitis, conjunctivitis, keratitis, iritis and scleritis, even severe ulceration of the cornea, if accompanied by the characteristic pain around the edge of the orbit; this pain may vary in character and intensity, may be sharp or aching and extend into the eye or head. Cinnabar has been useful for syphilitic iritis with gumma. The pain, as with other mercury preparations, is *< at night, usually < in evening*. Ciliary neuralgia. Asthenopia.

Subjective sensations in our materia medica must not be too literally adhered to; why differentiate between “pricking,” “sticking,” etc., “rawness,” “soreness,” “smarting,” “burning,” etc. Different provers, different patients, will use different words for the same sensation. It is a well known principle of evidence that the various witnesses will describe an occurrence differently, even with the best intentions to be accurate.

Roentgen Ray Treatment of Adenoids and Enlarged Tonsils.—In some cases only two or three doses were required to relieve the symptoms. Stewart's conclusions are: 1. Roentgen rays have a stimulating effect on chronically inflamed adenoid tissue, and enable it to resume its healthy condition. 2. The tonsils do not entirely regain their normal size except in favorable cases, the diminution in size being dependent on the time the organ has been inflamed or on the amount of fibrous tissue that has been formed. 3. The decrease in size is sufficient to dissipate all obstructive symptoms. 4. Conditions dependent on the septic state of the tonsils and adenoids are relieved. The radiological method certainly takes longer, but against this there is no shock to the child and no convalescent period; and as for the sum total of inconvenience the advantage lies with the Roentgen rays. In all cases a hard tube was used, the rays were filtered and not more than a half Sabouraud dose was allowed to pass through any given area of skin. The rays were applied laterally, the anticathode of the tube being above and behind the angle of the jaw, so that the rays encountered the minimum resistance in reaching the tonsil; the head was so placed that the rays swept in front of the vertebral column and the posterior pharyngeal wall. After a dose had been given on one side the head was turned and a similar treatment given on the other side. All measurement was done with a pastile lying on the skin. The tube was placed at a greater distance from the patient than is usual in order to obtain approximate equality of intensity of radiation throughout the pharynx.—*Brit. M. J.*, 2735.

CORRESPONDENCE.

DR. KELLOGG RECOGNIZES DR. BROWN'S CLAIM.

Los Angeles, Cal., August 4, 1913.

Journal of O., O. and L.

Gentlemen:—Kindly publish the enclosed card referring to my paper of a year ago. I wish to give Dr. Brown credit for priority but, of course, had no knowledge of his claim when I published my paper.

Very sincerely,

FRANCIS B. KELLOGG.

Dear Doctor:—I notice in Index of Oto.-Lar. for January your *New Procedure for Reduction of Turgescent Turbinals*. I have substituted for cautery in appropriate cases such an operation since Oct. 28, 1891, when I did my first with great satisfaction. Reported my cases in State Society, 1893. Other men had used knives, as I mentioned, but the saw had the advantage of making a scar tissue which reached into the bone in the high spots.

Sincerely yours,

EDWARD J. BROWN.

524 Syndicate Bldg., Minneapolis, Minn., June 2, '13.

Phenol-Ichthyol in External Otitis.—R. M. Nelson reports good results in external otitis from a combination of 5 per cent. each of phenol and ichthyol in glycerin. He recommends it in furunculosis of the canal, myringitis, and inflammation of the canal resulting from chronic otitis media.—*J. A. M. A.*

To Remove Nitrate of Silver Stains.—Nitrate of silver stains are removed by photographers by a solution of bichromate of mercury. Dipping the fingers into a strong solution of copper chloride converts the nitrate into chloride, and this is easily washed off with a solution of sodium hyposulphite.

The Spatula commends the use of the following ready-made solution:—

R. Sodium sulphite ʒj.
Lime chloride ʒss.
Water ʒij.

—*Med. World.*

CURRENT LITERATURE.

DEPARTMENT EDITORS.

WM. McLEAN, M. D.,
New York.

FRANK O. NAGLE, M. D.,
Philadelphia, Pa.

ANNALES DES MALADIES DE L'OREILLE, DU LARYNX, DU NEZ ET DU PHARYNX, Aout.

1. Oreille et accidents du travail. (Etude Medico-légale.) M. Lannois et M. Jacod.
2. Un cas de cylindrome trachéal; operation par voie externe; guérison. E. V. Segura.
3. Ozone et ozène. Robert Foy.
4. Contribution a la casuistique des surdités chroniques progressives avec inexcitabilité vestibulaire et vertige (syndrome de Ménière). L. Baldenweck.

ANNALES D'OCULISTIQUE. Aout.

1. De l'opacification du cristallin à la suite de suppuration cornéenne. Ernest Fuchs.
 2. Un cas de rétinite gravidique à la période cicatricielle. Rochon-Duvigneaud et Polack.
 - *3. Sur la désinfection des mains de l'ophtalmologiste avant les opérations et dans la pratique quotidienne. A. Terson.
 4. La sclérectomie simple dans le glaucome aigu. Bettremieux.
 5. La filaire de l'oeil (*filaria loa*) peut-elle déterminer des complications cérébrales. Brunetière.
 6. Dégénérescence amyloïde de la conjunctive et du cartilage tarsien. A. de Poppen.
 - *7. Paralysie des deux droits externes et de l'accommodation d'origine diphtérique. Guérison rapide sans traitement. E. Lataillade.
 - *3. Terson immerses his dry hands for five minutes in 250 grammes of 90° alcohol. Often he also rubs the hands, before operation, lightly for five minutes with an alcoholic solution of iodine, never stronger than 1 to 1000. (Robert's compressed soluble tablets afford such a solution, colored, instantaneously.)
- He quotes Grossich who reports that the skin does not reunite so

well in patients who have been scrubbed with iodine tincture before the operation.

*7. A little girl, 10 years old, was taken with diphtheria, April 9, 1912, confirmed bacteriologically. On the 15th 15 c.c. of Roux serum, injected, was followed by a rapid improvement of the throat; the following week was discharged with light paralysis of the velum palati, but the mother noticed only that the voice was slightly nasal; this disappeared in a fortnight. May 18th, at dinner the eyes crossed; examination showed complete paralysis of each external rectus and of accommodation—the pupils were normal. "Tonic medication" [?] was counseled, nothing else was done, but pronouncing that she would be well in a few days, and the child awoke on May 30th with no strabismus. Examination determined that the paralysis of the externi had disappeared suddenly; two days later the accommodation was normal.

KLINISCHE MONATSBLÄTTER FÜR AUGENHEILKUNDE.

August.

- *1. Die Schädeldeformität mit Augensymptomen. Dr. H. Larson.
2. Zwei Fälle von einseitiger Melanosis der Sklera, der Iris und des Augenhintergrundes mit warzenförmigen, kleinen Erhebungen an der Irisvorderfläche. Prof. Dr. B. Fleischer.
3. Angeborene Hypoplasie bzw. Aplasie des Irisvorderblattes. Dr. E. Rübel.
4. Fünf Fälle von Hydrophthalmus congenitus unter besonderer Berücksichtigung des pathologisch-anatomischen Befundes. Dr. S. Takashima.
5. Ein Fall von Schimmelpilzerkrankung des Auges. Prof. Dr. F. Dimmer.
6. Zur Frage der anaphylaktischen Entstehung der sympathischen Entzündung. Dr. E. Cramer.
7. Ueber experimentell hervorgerufenen einseitigen Nystagmus. Prof. Dr. E. Mangold und Dr. A. Löwenstein.
8. Störungen im Synergismus von Augenbewegungen. Dr. A. Eppenstein.
9. Ein Fall von atypischer Retinitis circinata. Dr. E. Bachstez.
10. Ueber die Verwendbarkeit der Lippenschleimhaut zur tektonischen Keratoplastik. Dr. R. v. Mende.
- *1. Die Schädeldeformität mit Augensymptomen. Dr. Harold Larsen.

This article begins with statistics of several blind institutions and it is interesting to note what a fair proportion of blindness is due to deformities of the skull.

In the Saxony Blind Institut, Turmschädel Deformität was responsible for 20 cases of blindness or about 10 per cent. of all the inmates. At the National Institution for the Blind, at Copenhagen, the author found 13 cases of Turmschädel amongst 95 inmates.

Turmschädel is more frequent in boys than in girls. The author then describes the typical appearance of the skull, which should be recognized at a glance by the trained ophthalmologist.

The eye symptoms usually found are exophthalmos, strabismus divergens, nystagmus and postneuritic atrophy. The cause of the optic atrophy is either increased, intracranial pressure or deformity of the optic foramen.

The majority of the modern authors believe that Turmschädel is a result of premature synostosis of the cranial sutures. Virchow thought these synostoses were the result of meningitis. In his time most authors held to that view—(Vortish-Englion). Bullinger considers the cause an increased physiological process. Normally the cranial bones are united by synostoses after the growth of the skull has been attained—about the age of 25. This article concludes with photographic plates of constricted optic foramen and reports from the literature of operated cases.

THE AMERICAN JOURNAL OF OPHTHALMOLOGY. August.

*1. Some Experiments Concerning the Lymph Vessels of the Eye and the Orbit. M. Leboucq.

*1. The author made several experiments on rabbits, by injecting different substances into the vitreous and posterior chambers of the eye. Sterile olive oil gave the best and most characteristic results, its elimination being extremely slow and it caused no inflammatory reaction.

The conclusions drawn from the experiments were:

(a.) The aqueous of the posterior chamber is secreted by the anterior surface of the ciliary process; that of the anterior chamber by the anterior surface of the iris.

(b.) That the aqueous is eliminated very slowly. A minimal part passes through the endothelium and Descemet's membrane and nourishes the deepest layers of the cornea. Another part enters the iris

through the pupillary stomata and perhaps through certain places in its anterior surface. The largest part goes to the iris angle and Fontana's spaces. At this locality the liquid flows out into the lymph spaces surrounding Schlemm's canal and the anterior ciliary veins. Having passed the limbus the lymph continues through lymph space channels surrounding and accompanying the veins. These empty into the jugular vessels which accompany the jugular vein.

(c.) There is no other way for the outflow of the aqueous humor, either by the venous system or by the lymph spaces of the posterior part of the eye.

(d.) The posterior lymph circulation is independent of the anterior and its drainage is at the posterior pole, the lymph passing out through channels surrounding the posterior vessels and nerves.

THE OPHTHALMOSCOPE. Aug.

1. Acute Purulent Keratitis in Exophthalmic Goiter, Treated by Repeated Tarsorrhaphy, Resection of the Cervical Sympathetic and X-Rays. Retention of Vision in One Eye. F. A. Juler.

2. Pulsation of the retinal arteries. A. J. Ballatyne.

*3. Two Unusual Orbital Conditions. W. C. Posey.

*3. Chronic inflammatory tumor, with cyst and giant cell formation in the floor of the orbit and connected with the lacrimal sac, arising after false passages made with lacrimal probes.

Large lacrimal vucocele occasioned by pressure exerted externally by the distended walls of the anterior ethmoidal cells, in consequence of retention within the cavity.

THE OPHTHALMOSCOPE. Sept.

1. On the Present Position of Ophthalmology. R. W. Doyne.

2. The Present Position of Ophthalmology in Canada. R. A. Reeve.

3. The Relation of Ophthalmology to General Medicine. C. O. Hawthorne.

4. The Present Position of Ophthalmology in Hungary. Emil de Gröz.

5. Discussion on the Present Position of Ophthalmology. F. R. Cross.

6. On the Present Position of Ophthalmology in Great Britain. Sidney Stephenson.

7. Trephining in Glaucoma, Acute and Chronic. R. H. Elliot.
8. On Pseudoneuritis. C. G. R. Wood.

J. OF OPHTHALMOLOGY AND OTO LARYNGOLOGY. August.

*1. Cerebral localization from the standpoint of the oculist. Der-rick T. Vail.

2. Tonsils and Adenoids—Their Significance. G. H. Kres.

*1. The eye symptoms of brain disease are only valuable, as a means of localization, when studied in conjunction with other symptoms. In paralysis of lateral motility to one side it must be determined whether there is power of convergence. Spastic canjugate deviation of the eyes indicates a cortical lesion.

In cerebral apoplexy with coma conjugate deviation is usually toward the affected side. It is usually turned away in abscess of the cerebellum, also if the pons is diseased.

Involvement of the 5th, 6th, 7th, 8th and 12th nerves on one side and hemiplegia of the other side make the pontine lesion positive on the side of the paralysis of the cranial nerves.

Nystagmus (not a common symptom) indicates that the tumor is in the cerebellum or pons.

Deviation downward and outward of one eye and upward and inward of the other indicate disease of the middle cerebral peduncle.

Ptosis was found in 25 cases to be such a lesion in the cortex located in the supramarginal and angular gyri of the other side.

The center for reflex pupillary reaction to light is in the anterior portion of the nucleus of the third nerve, in the floor of the aqueduct of Sylvius near the third ventricle. Pupils may be much contracted when the eyes are entirely blind—atrophy from tabes; in third nerve palsy they may be dilated and fixed with perfect vision.

The nuclei of convergence and of the pupil center are close together, but separate; one may be palsied and not the other.

Paralysis of the third nerve causes paralysis of pupil and accommodation on the same side without affecting the other side.

Vision and the fields of vision must be accurately determined in all brain cases.

Choked disk, the most constant of all eye symptoms, means increased cerebral pressure and in the presence of other symptoms, is strong evidence of tumor.

Tumor of the crus cerebri causes third nerve palsy on one side with

hemiplegia on the other; if this is double the tumor has grown to involve the other side. Optic neuritis is rare (10 per cent.).

Tumor of the pons (diagnosed by palsy of the 6th or 7th and sometimes also of the 5th nerve of one side and of the hypoglossus with hemiplegia of the other) there may be hemiplegia on one side with conjugate paralysis of the ocular muscles on the other. Those with deafness on the same side suggest tumor of the cerebellar pontine angle.

Tumor of the corpora quadrigemina and pineal gland is indicated by paralysis of up and down movement of the eyes, but not laterals, with impaired equilibrium and deafness on one side. Choked disk is common from internal hydrocephalus blocking the aqueduct of Sylvius. The pupils are disturbed from interference with the light reflex arc. Nystagmus and deafness are common.

Tumor of cerebellum—cerebellar ataxia, dizziness, nystagmus, divergence (or sometimes convergence) of both eyes, nuclear ophthalmoplegia with—most significant—early and pronounced choked disks.

Tumor of the base—middle fossa—bitemporal hemianopsia in many cases, optic neuritis in some and acromegaly in a few. Tumors of the anterior and posterior fossæ are not so easily diagnosed. Tumors below the tentorium present early localizing symptoms; those above may be obscure till death.

J. OF OPHTHALMOLOGY AND OTO-LARYNGOLOGY. Sept.

*1. Some cases illustrating ocular disturbances due to disease of the nose and accessory sinuses. John E. Weeks.

*2. Danger signals in suppuration of the middle ear. J. Hollinger.

*1. Ten cases. (1) A reflex neurosis. Photophobia, swelling of lids and conjunctiva with lachrimation were apparently dependent upon a painful furuncle in the nose, on the inner aspect of the right ala. The right pupil was slightly larger than the left and right accommodation weaker than the left. (3) For years headaches and inability to use the eyes for close work. Glasses and tenotomies after repeated efforts gave comparative relief for a while and improved vision. There were no nasal symptoms nor disease—only a narrow nasal cavity. Operative reduction in size of both middle turbinates promptly relieved all discomfort and headaches. Ciliary spasm, pain referred to eyes and orbits and pressure neurosis headaches were apparently caused by an anatomical defect in the nose with at times congestion but not inflammation of the nasal mucosa. (4) Disease of the orbits—thyroid cells

of both sides—caused orbital edema, limited rotation, diplopia, exophthalmos and congestion of right optic disc, when there were exacerbations of the nasal sinus inflammation. (5) and (6) were monocular, retrobulbar toxic left neuritis from disease of the posterior ethmoid and sphenoid sinuses, almost complete recovery “resulting from treatment of these sinuses.” (7) Left retrobulbar optic neuritis from disease of left middle turbinate with rhinitis; three years later right inferior neuritis developed as a result of cystic degeneration of the right inferior turbinate. Nasal operation cured both attacks of optic neuritis. (8) Marked exudative right neuroretinitis from nonsuppurative inflammation of posterior ethmoid and sphenoid cells of that side, associated with a deviated septum. Permanent defect in the visual field shows that injury may be done in relatively short time. (9) Optic nerve, retina and entire vascular coat of the eye were inflamed because of ethmoid and sphenoid disease. (10) Exophthalmos from an abscess near the apex of the orbit due to purulent inflammation of an orbito-ethmoid cell.

*2. (a) Labyrinth invasion. Sudden loss of hearing, vertigo, nystagmus, and usually vomiting; the patient feels and walks as if drunk. (b) Thrombophlebitis of lateral sinus or jugular bulb and vein. Repeated attacks of chills with high fever (104° and 105° F.) alternating with perfectly normal periods, often accompanied with sudden lung symptoms. One may safely wait for two or three of these attacks to subside in order to exclude other causes. (c) Intracranial complications—headache and sleeplessness. (d) Bezold's mastoiditis—sudden or gradual appearance of a broad swelling on the side of the neck just below the mastoid process. Operate immediately, notwithstanding the pain may have ceased.

NEW YORK STATE JOURNAL OF MEDICINE. Sept.

5. Physiology of the hypophysis cerebri. Sutherland Simpson.

6. The intranasal approach to the hypophysis. Lewis A. Coffin.

*7. Ocular disturbances of hypophyseal disease. Arnold Knapp.

*7. The posteroinferior surface of the chiasm does not lie in the optic sulcus but rests on the anterior part of the hypophysis immediately anterior to the infundibulum. The cavernous sinus, with its accompanying nerves, is adjacent to the hypophysis, one on each side.

The enlarging hypophysis enlarges the sella, and presses first upon the visual fibers which cross in the middle of the chiasm. The crossed

macular fibers are on the median line and within the crossed fibers of the center of the chiasm. The visual disturbances increase irregularly, maybe to blindness; the characteristic visual changes may be present only at a certain stage. The pituitary tumor may grow anterior to the chiasm and invade the orbit from lateral pressure from an extension along one side the chiasm, from an involvement of one or both optic tracts or nerves, and finally from a constriction of the tract or nerves by pressure against the anterior cerebral arteries.

Defects in the visual field are the most common visual disturbances in pituitary disease. Of these 50 per cent. are unsymmetrical temporal hemianopsia, irregular with uneven limits. The primary defect usually first involves the color boundaries in one upper temporal quadrant. The process, unequal in the two eyes, seems for a time to be arrested at the macula area. It is of the greatest clinical significance to look for mere tendencies toward temporal defects, particularly in the peripheries. Paracentral scotoma may precede the development of the temporal hemianopsia or be observed on its disappearance after operation.

Simple optic atrophy Uhthoff found in 20 per cent.; choked disc only about half as frequently. The latter may be superposed on the former by complicating internal hydrocephalus. Optic neuritis and neuritic atrophy are only about half as frequent as optic atrophy.

The ocular muscles are implicated (Uhthoff) in between 10 and 25 per cent.; these are nearly always ocular motor pareses, often as a ptosis. Complete and bilateral oculomotor paralyses are uncommon; paralysis of the abducens nerve is very unusual.

Careful and frequent examinations should be made for paracentral scotoma and color defects.

A valuable discussion follows, illustrated with a number of field charts.

PACIFIC COAST JOURNAL OF HOMŒOPATHY, Sept.

1. Psychotherapy. George H. Martin.
6. Rhus toxicodendron as a remedy in diseases of the eye. Harlan T. Kerr.

ARCHIVES OF OPHTHALMOLOGY. Sept.

1. Keratoconus, with Reports of Cases. John E. Weeks.
- *2. The Experimental Production of Sclero-keratitis and Chronic Intraocular Tuberculosis. F. N. Verhoff.

*3. Two cases of Chronic Glaucoma Simplex Treated by Iridotaxis. D. Harrower.

4. The Report of a Case of Microphthalmus with Orbital Cyst (R.). Partial Microphthalmus with Intraocular Changes (L.). F. P. Calhoun.

5. Report of a Case of Traumatic Equatorial Rupture of the Sclera. A. Knapp.

6. On the Treatment of Trachoma with Iodic Acid. J. Rudas.

7. A Method to Keep the Upper Eyelid and Superior Fornix Everted. V. Grönholm.

*2. Verhoff found in experimenting with live tubercle bacilli in the eye, that focal lesions resulted in the uvea with a tendency to heal without destroying the eye; while by injecting dead bacilli into the eye in sufficient quantity a sclerokeratitis resulted with tubercles in the iris and ciliary body.

This condition closely resembled the tuberculous sclerokeratitis in man. His observations confirmed the theory of infection from the aqueous humor through the filtration angle and from the vessels of the ciliary body.

*3. The method of fixation of the iris in the wound is a modification of the Holth operation. The conjunctiva is resected with the scissors beginning 10 m.m. from the limbus, care being used to cut deep enough to remove considerable subconjunctival tissue with the conjunctival flap. Lift the conjunctival flap over the corena and with a lance knife having a stop make an incision through the sclera 4-5 m.m. long and 1-2 m.m. from the cornea, as in doing an iridectomy. Grasp the iris at the sphincter margin with iris forceps and draw the iris into the scleral wound where it is deposited. Replace the conjunctiva so it will cover and protect the iris protruding through the scleral wound. In this manner a filtering scar is produced which insures against increased tension.

THE OPHTHALMIC RECORD. Sept.

1. The Management of Foreign Bodies in the Eye and Orbit. Edward Stieren.

2. Hole at the Macula. A. A. Bradburne.

3. Report of Case of Spontaneous Dislocation of Both Lenses Into the Vitreous. J. C. McAllister.

4. Complete Bilateral Aniridia. Ectopia Lentis. Pathological Cupping of the Discs. T. B. Holloway.

5. A Case of Pulsating Exophthalmus. G. H. Mathewson.
6. Abscess of the Lacrimal Sac in a Child One month Old. F. H. Holdsworth.
7. A Case of Pemphigus of the Conjunctiva. J. Bordley.
8. Cacodylate of Sodium in a Case of Kerato-Iritis Due to Lime Burn. F. Allport and A. Rochester.

THE OPHTHALMIC REVIEW. Sept.

1. An Optical Method of Rectifying Cataract Lenses. E. E. Maddox.
2. Tarsitis Necroticans. Dr. Jarnatowski.

REVUE GENERALE D'OPHTHALMOLOGIE. Septembre.

Note sur l'écriture des aveugles. Curtil.

ANNALES d'OCULISTIQUE, Septembre.

1. Action du sulfate de zinc sur le diplobacille de la conjunctivite subaigue. Duverger.
2. Recherches sur l'action des sels de zinc dans la conjunctivite diplobacillaire. Arnold Verrey-Westphal.
3. Notes sur l'anatomie et la physiologie de l'appareil accommodateur de l'oeil. M. J. Mawas.
4. Etude des propriétés photo-électriques du sélénium pour des intensités lumineuses moyennes. Application possible à la photométrie clinique. E. Carlo.
5. Remarques sur la détermination du champ visual binoculaire à l'aide des couleurs chez les strabiques. Campos.

AMERICAN JOURNAL OF SURGERY, July.

*4. Notes on recent cases of esophagoscopy, bronchoscopy, and laryngoscopy. Richard H. Johnston.

*4. Preparation. Removal of a penny from esophagus. Stricture. Grain of corn in the bronchus. Papilloma of the larynx. Instruments most useful. Position of the patient. Recent experience has convinced the author that the high frequency spark is the best treatment for papillomata of the larynx in adults and children: (after alypin anesthesia) the $\frac{1}{4}$ inch spark is applied through the direct laryngoscope. The tumors are burned with the spark, turn pale and disappear. Normal tissue is not injured unless the spark contact is prolonged.

August.

*3. The radical mastoid operation in children. David G. Yates.

7. Symptoms of pathological lingual tonsil, and treatment. Harold Hays.

*3. Some patients, 5 years after this operation have dry ears, hear the conversational voice 10 or 15 feet, and hearing has not deteriorated below what it was before the operation; some cases are slightly improved. In these cases one sees a meatus symmetrically and very slightly enlarged beyond the normal, and a smooth canal leading to a fundus partly occupied, in some instances, by a secondary membrane.

September.

*5. Value of the conjunctival flap in wounds of the cornea and sclera. Edgar S. Thomson.

*5. First mention. Retarded healing. Danger from infection. Forms of flaps. Subconjunctival needling. Bibliography.

October.

1. Importance and prevention of respiratory restriction during general anesthesia in the inhalation methods. Raymond C. Coburn.

5. Autotherapy in surgery. Charles H. Duncan.

*6. Military surgery (continued). Gustavus M. Blech.

*6. Gunshot wounds of the face. Injuries of the soft parts. Injuries of the bones. The eye. The tongue.

NORTH AMERICAN JOURNAL OF HOMŒOPATHY. October.

*1. Natrum muriaticum in cataract. E. T. Allen.

*1. "Perhaps no greater doubter and ridiculer of the therapeutic value of natrum muriaticum ever existed than" E. T. Allen, M. D., Ph. D., of Chicago. "The very idea," he goes on, "that common salt, which we use continually in our food, could, in a smaller dose, influence the human body, was preposterous. And for years it was left entirely out of my armamentarium." "Half ashamed at myself for doing it" he once gave a man natr. mur. 30 for an obstinate chronic intermittent which was—much to his surprise—cured immediately. He thereupon laid aside his prejudices and took to study and experimenting with the result that, although "naturally very skeptical," he is now "ready to stake my [his] reputation as an oculist on natrum muriaticum, with other remedies "in cataract—when indicated."

For sixteen years he has been striving to cure cataract after Dr.

Burnett's plan; has saved from the knife 87 per cent. of his cases. In most of the remaining 13 per cent. vision was almost nil at the start. "Frankly, I [he] have not been able to cure ripe cataract." In his twenty-five cases of cataract which have entirely disappeared under the simple homœopathic treatment *natrum muriaticum* has been a helpful factor in six; of the forty others which have so improved as not to require operation it has helped in eight. "Natrum must not be used empirically. Unless the indications are present it will do no good, for it is not a cure-all."

**QUARTERLY OF THE FEDERATION OF STATE MEDICAL BOARDS
OF THE U. S., Vol. 1, No. 1, October, 1913.**

1. Preparation for the professions. Henry S. Pritchett.
2. The homœopath's viewpoint of medical education. Royal S. Copeland.
3. Chief needs and functions of the Federation of State Medical Boards. N. P. Colwell.
4. An address to state boards. M. A. Spurgeon.
5. Uniform state laws—a necessity. Charles Thaddeus Terry.
- *6. Rules and regulations governing examinations. John M. Baldy.
7. Discipline of the character in medical education. Eugene A. Philbin.

8. Universal reciprocity. Beverley D. Harison.

*6. "It is not the function of a state board to examine any of the fundamental branches of medicine" (chemistry, anatomy, etc.), "except indirectly."

The function of this examination is to test the applicant's ability to use his tools properly. "He cannot show such knowledge as to use without incidentally showing that he knows his tools." Various branches should be blended in a single question, as is done in Pennsylvania. There are other agencies organized to conduct preliminary tests of the fundamental branches; the state should test the efficiency of the finished product as an entity. Pennsylvania's experience in blending kindred subjects into one practical bedside question is so convincing that she intends to develop the method. The comprehension of such a question is one of its greatest merits.

Ancient Hindu surgeons (first chapter of the *Ayur Veda*) were bold and expert operators, with 125 or more instruments; they performed cataract and rhinoplastic operations. Transplanting sensible skin flaps was an Indian procedure.

ABSTRACTS.

Indications for and Technique of Trephining the Labyrinth. (A. Hautant, in Soc. Française d'Oto-Rhino-Lar.)—Hautant's report is based upon 75 personal observations and 23 operations that he has made.

Surgery cannot save the hearing in a suppurating labyrinth. The question that decides operation is as to whether the individual case of labyrinthitis may be or become the point of departure of an endocranial complication. Partial labyrinthitis never provokes a meningitis. Labyrinthitis is partial when it is yet possible, by a semicircular or acoustic test, to arouse the excitability of the internal ear.

It is more difficult to state precisely the indications for operation in acute total labyrinthitis. The labyrinth is then entirely infected and completely paralyzed. There is no intermediate stage between total labyrinthitis and meningitis; the first new symptom which appears is endocranial.

Many of these acute labyrinthites recover spontaneously. A well directed medical treatment may have better prospect of preventing meningitis and favoring protective adhesions.

Hautant thinks it possible to recognize the cases of acute labyrinthitis which are not usually the cause of endocranial complications and do not call for immediate trephining of the labyrinth. Such are: those following operative wound of the horizontal canal; those occurring in the course of acute otitis and mastoiditis; scarlatinal or tuberculous labyrinthitis, and finally all those which break out at the end of an ordinary otorrhœa and very rapidly, from the end of the first week, no longer show a single symptom of vestibular irritation. These are benign forms, often only serous, or induced by collateral edema having invaded the internal ear without apparent lesion of the capsule. Scarlatinal or tuberculous labyrinthitis sometimes forms deposits, but it is very exceptional that they involve the meninges.

It is necessary to trephine acute total labyrinthitis of, say, two weeks' standing, which presents symptoms of vestibular irritation, such as vertigo, disturbance of equilibrium and spontaneous nystagmus.

Subacute and protracted labyrinthitis is most often the cause of meningeal accidents.

The surgical hour, in acute total labyrinthitis consecutive to ordinary otorrhœa, comes when the reactionary vestibular symptoms have not disappeared by the fifteenth day.

Hautant considers it necessary to trephine the grave acute forms without waiting for a meningeal symptom; it is dangerous to merely drain first and trephine later.

In chronic labyrinthitis recurring after months or years trephining is indicated only in cases of persisting disturbance of equilibrium or if

an osseous labyrinth lesion is found (sequestrum, osteitis of the promontory, recent facial paralysis).

If there be accompanying endocranial manifestation it is urgent to open the labyrinth and to explore the cerebellar fossa. It is sometimes difficult to determine whether the fever, headache, vomiting, spontaneous nystagmus, disturbance of equilibrium, are due to labyrinthitis or to some complication in the cerebellar fossa.

Barany's methods of cerebellar exploration "are still too new to be adopted without restriction;" they lack anatomico-pathological basis; they rest upon distinctions difficult to make even in normal subjects; they bring to light, not a cerebellar lesion, but a simple functional trouble of this organ which may be due to a distant lesion.

Twice Hautant found serous meningitis and his exploration of the cerebellar fossa caused the equilibrium disturbances to disappear.

In the simple trephining Hautant opens the vestibule in front of the vertical portion of the facial nerve, draining this cavity and the base of the cochlea to prevent infection by the internal auditory meatus. He makes a retrofacial vestibular counteropening at the bottom of a trench which separates this cavity from the cerebellar fossa. It is not necessary to dissect all the canals and lay bare systematically the cerebellar dura mater. The retrofacial counteropening is facilitated by uncovering the ampulla ("decouverte de la boucle") of the horizontal canal which has a constant situation—on a horizontal line passing by the posterior pole of the oval window to five millimeters behind this pole—and by following the internal branch of the horizontal canal, which leads to the posterior face of the vestibule.

This simple trephining is without danger, mortality is 4 per cent.; it is easy to avoid wounding the facial.

Neumann's procedure—simultaneous trephining of the posterior part of the vestibule and of the cerebellar fossa—is always indicated if endocranial complication threatens:—

Lay bare the descending portion of the sinus; resect the posterior face of the mastoid, then that of the petrous bone. Thus one opens the ampulla of the posterior vertical canal, then that of the horizontal canal. At this moment it is easy to open the vestibule by its posterior extremity and to explore the dura mater in the region of the endolymph sac. Sometimes the gouge, sliding under the elbow of the facial, opens the posterior border of the internal auditory meatus.

Hautant reports three cases; he thinks half the cases of labyrinthine meningitis without cerebellar abscess will recover if operated rapidly and radically, for many of these cases are due to osseous lesions and are encysted in the beginning.

Thus there are three routes to a labyrinth endocranial complication: (1) roof of the antrum, (2) posterior mastoid face, and (3) vestibule, internal meatus and region of the endolymph sac.—*Ann. des Mal. de l'Or., du Lar., du Nez et de la Phar.*, Juillet.

Quinine Amblyopia as a Guide to Chininum.—In an original communication to the *Charlotte Medical Journal*, Dr. Edward E. Gibbons, of Baltimore, speaks at length on the ocular complication of malarial disease as well as the eye condition following the action of quinine. Dr. Gibbons asserts that the diagnosis of malarial amblyopia or amaurosis is not usually difficult save in cases in which a doubt arises whether the blindness is due to the malarial infection or to quinine poisoning. Quinine amaurosis could only be confounded with the permanent form of malarial blindness since the former has always a long course. An ophthalmoscopic examination will however always reveal the true nature of the case. *In poisoning with quinine there is always a decided ischemia of the retina and optic nerve. The arteries and veins are extremely attenuated; all traces of them may even be lost a short distance from the papilla. The optic disc from the onset is very white and its margins very distinct as in cases of optic atrophy. There are furthermore no evidences of retinal hæmorrhages.*

[This toxicologic picture, if seen in our patient, will at once call for our dynamized preparation of china (quinine).]

Malarial amblyopia is associated with just the reverse condition. We find hyperæmia of the fundus and papilla, optic neuritis and retinal hæmorrhage or arteritis; a picture wholly unlike that of quinine amblyopia. In exceptional cases I have noticed narrowing of the retinal arteries but the veins are never attenuated, but more or less turgid with blood. Malarial amaurosis is of brief duration and frequently ends in complete restoration of vision unless atrophy of the optic nerve ensues. Quinine amaurosis runs a much longer course and while with appropriate treatment useful central vision is regained the field of vision forever remains contracted so that while the patient is able to read and write he is not in condition to safely go about alone. The ophthalmoscopic picture remains about the same and the amount of vision slowly wanes parri passu with increasing atrophy of the optic nerve. Suppurative choroiditis, iritis and cataract are infrequently associated with acute malaria. A few such cases have been reported.

The eye complications of chronic malaria are also found in the retina and optic nerve as retino-choroiditis and optic neuritis. In the former there is peripapillar edema and venous congestion accompanied by numerous retinal hæmorrhages scattered well over the fundus, small and punctiform in the periphery but large and irregular in outline about the optic disc. Poncet studied microscopically the eyes of those dead with malarial cachexia. He confirmed the above findings but did not find any melanæmia in the retinal circulation but the retinal hæmorrhages were associated with proliferation of the endothelial cells of the capillaries. In the choroid the melanæmia was however distinctly noticeable.—*Hahn. Mo.*

BOOK REVIEWS.

SURGICAL OPERATIONS WITH LOCAL ANESTHESIA. By ARTHUR E. HERTZLER, M. D., Surgeon to the Halstead Hospital, Halstead, Kan., and to the Swedish Hospital, Kansas City, Mo. Cloth, $8\frac{3}{8} \times 5\frac{1}{2} \times \frac{3}{4}$ ", 208 pages, 104 text illustrations; price, \$2.00. Surgery Publishing Co., New York. 1912.

Another monograph without which a medical library is incomplete. The author sets forth clearly local anesthesia in general and particular, with a fondness for quinine and urea hydrochloride. The methods, dose and toxicology are given of cocain, quinine with urea, novocain, stovain and adrenalin; but not in such detail, of beta-eucain, tropococain and water; while aensthesin, subcutin and "alpin" (alypin) are but mentioned.

Dr. Hertzler thinks the reason why local anesthesia is not more generally employed is really because its technique needs to be studied thoroughly. The technique of many operations and of their anesthetization is very clearly given, particularly that for circumcision. Tonsillectomy is called partial tonsillectomy—possibly from the tonsillotome being followed sometimes with the tonsil ("Ruault's") punch. The technique for the mastoid operation is decidedly insufficient. The reviewer balks at local anesthesia for that, unless nothing more than Wilde's incision is to be done, and is surprised to find no allusion to local anesthesia for the eye or its adnexa.

The index might well be more full, and it is a pity to find so many typographical errors; aside from these the printing, paper, binding and particularly the illustrations merit commendation.

DISEASES OF THE EAR. By PHILIP D. KERRISON, M. D., Professor of Otology, New York Polyclinic Medical School and Hospital; Junior Aural Surgeon to Manhattan Eye, Ear and Throat Hospital; Aural Surgeon to Willard Parker Hospital, and Polyclinic Hospital. Cloth, 588 pages, 331 illustrations, 2 colored plates. Price, \$5.00. J. B. Lippincott Company. Philadelphia and London.

It is a pleasure to review a work such as this, comprehensive in its scope, thoroughly up to date, and stamped with the individuality of the author.

The arrangement of the subject-matter is admirable and the absence of the detailed description of obsolete and antiquated methods of treatment, which is usually introduced for padding, adds materially to the pleasure of its perusal, while the chapters on salvarsan and serum and vaccine therapy embody the last words concerning those methods of treatment.

The illustrations are profuse and well executed; the press work and

binding measure up to the usual standard of the publishers. The only criticism, apart from the calendered paper which, while the fact is to be deplored, is necessary in order to attain the finest results in illustrating the text, is that the paper used is unnecessarily heavy, making the weight of the book so great that it is actually fatiguing to the arms when supporting it during its perusal. F. G. R.

TEXT-BOOK OF DISEASES OF THE NOSE, THROAT AND EAR, FOR THE USE OF STUDENTS AND GENERAL PRACTITIONERS. By FRANCIS R. PACKARD, M. D., Professor of Diseases of the Nose and Throat in the Philadelphia Polyclinic and Hospital and College for Graduates in Medicine; Aurist to the Out-Patient Department of the Pennsylvania Hospital. 377 pages, 145 illustrations, 5 colored plates. *Second Edition*. Price, \$3.50. J. B. Lippincott Company. Philadelphia and London. 1913.

The scope of the work, as stated by the author, is to furnish the post- and under-graduate student with a practical work presenting the essentials of disease of the nose, throat and ear, eliminating theoretical dissertation as far as possible.

The present edition has been largely rewritten, and a chapter on direct laryngoscopy, tracheo-bronchoscopy and esophagoscopy has been added.

The work is well adapted to the requirements of the undergraduate, and also for the postgraduate student who does not seek to qualify himself as a specialist in the field of ear, nose and throat work.

F. G. R.

A MANUAL OF OTOTOLOGY. By GORHAM BACON, A. B., M. D., Professor of Otology in the College of Physicians and Surgeons, Columbia University, New York; Aural Surgeon, New York Eye and Ear Infirmary; Consulting Otologist, Roosevelt Hospital, Presbyterian Hospital, Hospital for Ruptured and Crippled, and Minturn Hospital, New York. *Sixth edition, revised and enlarged*. Cloth, 8x5x3/8", 536 pages, 164 illustrations and 12 plates. Price, \$2.25, net. Lea & Febiger. New York and Philadelphia. 1913.

We welcome another edition of this valuable work—little only in comparison with other "manuals" which do not contain much if anything more of value. Author and publisher have the art of condensation, yet despite all efforts the successive editions have gradually increased in size. The articles on suppurative labyrinthitis and the submucous operation have been wholly rewritten and enlarged and that on otosclerosis recast. Emphasis is laid on early examination of the cerebrospinal fluid in leptomeningitis, vaccine therapy and the modern technique of tonsillectomy. A new feature is the addition of a number of important case histories. The illustrations are fine, a number of them new.

The only criticism that we make is that while he defines otosclerosis as "disease of the labyrinthine capsule" nowhere does he explain what is meant by the term "labyrinthine capsule."

DISEASES OF THE SKIN, INCLUDING THE EXANTHEMATA. For Use of General Practitioners and Advanced Students. By FREDERICK M. DEARBORN, A. B., M. D., Professor of Dermatology, New York Homœopathic Medical College and Flower Hospital; Clinical Professor of Dermatology, N. Y. College and Hospital for Women; Dermatologist to the Metropolitan Hospital (Department of Charities, New York City), to the Flower Hospital, to the Hahnemann Hospital and to the Laura Franklin Free Hospital for Children; Consulting Dermatologist for five hospitals. Cloth, $10\frac{1}{2} \times 7 \times 1\frac{1}{4}$ ", 550 pages with 230 illustrations in the text, \$5.00, net. Postage, 30 cents. Philadelphia. Boericke & Tafel. 1913.

No one could be prouder of this fine work than would have been the author's father, and predecessor, the late Professor Henry M. Dearborn, whose book on this subject will be replaced only by this 20th century book, which is up to date except—possibly—in one instance. Our author apparently does not place much importance on J. R. McDonagh's investigations into the life-cycle of *treponema pallidum* or in the latter's idea that the infection is carried by the sporozoites. (*Brit. Jour. of Dermat.*, Nov., 1912.)

The classification is: general considerations; hyperæmias and inflammations, hæmorrhages, hypertrophies, atrophies, new growths, neuroses; diseases of the appendages—sweat- and sebaceous-glands, hair and hair follicles, nails; and of the mucous membranes.

Nearly eight pages are devoted to a list of homœopathic remedies with the diseases for which each is useful and over three pages to the forms of dermatitis which they cause. A condensed repertory for eczema about fills two pages,—and very many of the illustrations depict cures by the homœopathic remedy. More than fourteen recipes are given for alopecia prematura; these could be used more intelligently if some reasons were assigned more particularly than their general classification as stimulants. Homœopathic remedies are also recommended.

The author's style is clear, the arrangement and illustrations *good*, and the publishers have, as usual, done their part in first-class manner.

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EDITORIAL.

DR. RICE WITHDRAWS.

IT is with double regret that we announce that Doctor Rice relinquishes the conduct of our department of homœopathic materia medica and therapeutics. This is a serious loss to the JOURNAL and the failure on the part of the profession to support him is indeed discouraging.

He has "not kept account of the number of letters sent out in the past eighteen months, but it is somewhere in the neighborhood of 275." In return for which we received ten contributions!

Dr. Rice continues: "This is pretty clear evidence that material is not to be had for a live and respectable department." Less than two months previously he wrote: "I was made to feel, by what was done at the Chicago meeting and what I heard at the Denver meeting from the few eye and ear men there, that the hammering we have done for materia medica is counting for something; they appreciate the work that is being done, and they promised faithfully to help from now on. I came away more encouraged than I have been for some time and more determined than ever to fight.

Not one of these men (except possibly one of our ex-presidents) have kept their word, and Dr. Rice has become disheartened; he has made up his mind to devote his energies to more purpose—experimenting for a better materia medica.

We thank Dr. Rice for his work and for what he has accomplished. To him (in our judgment) is due the credit—if such can be attributed to any one man—for the rejuvenescence of homœopathy in our specialties.

If it were not that Dr. Rice feels the importance of his work as outlined last February (page 78) and September (page 352) he would doubtless have persevered yet a little longer.

"Oh, a trouble is a ton or a trouble is an ounce,
 Or a trouble is what you make it;
 And it isn't the fact that you're hurt that counts,
 But only—how did you take it?"

"You're beaten to earth? Well, well, what's that?
 Come up with a smiling face;
 It's nothing against you to fall down flat,
 But to lie there—that's disgrace.

"It isn't the fact that you're licked that counts;
 It's how did you fight—and why?"

* * * * *

"If you battled the best you could,
 If you played your part in the world of men
 Why, The Critic will call it good."

We do not give up the ship. We realize that there is a homœopathic wakening and have faith that our brothers will cease shirking, now that they realize how they have shirked. Aside from papers written for our O. and O. Society and in addition to the labors of the editorial staff, our readers are indebted for their homœopathy during the past eighteen months to Drs. Bellows, Campbell, Copeland, Garrison, Hallett, Homan, Linnell, Quay, Rabe, M. Rice and Schenck.

Come and join the band. This means you, gentle reader! If no experience comes to mind just now, keep us in mind and make notes of promising cases. Give us your failures, they are often more helpful than successes. Study the *materia medica*, and give us your studies.

Do *you* care whether this JOURNAL (there is not another one in the world just like it) expires, drags along in mediocrity or improves?

The future lies with you, not with the editors. Do it now.

NEW YORK OPHTHALMIC HOSPITAL REPORT.

W. D. ROWLAND, M. D.,

Senior Resident Surgeon.

THE first group of this report will be a series of sixteen cases showing the results of **salvarsan in syphilitic conditions of the eye, ear, nose and throat.**

1. No. 4958—12, Miss N., aged 21, American, Irish parentage, waitress. Feb. 14th, 1912: seven months ago left eye became inflamed, painful and cornea cloudy, with photophobia. Shortly afterwards the right became involved. Diagnosis, *kerato-iritis* o. u. Patient entered hospital: *R.* Atropin and dionin, with mercurdulc., cann. sat., aur. mur. and caust., were used successively until March 22d, when mercurial inunctions were given daily for four days with intervals of four days until twelve had been given. April 9th, little improvement o. u.; inunctions repeated. May 4th, condition considered syphilitic although no history could be elicited to substantiate this opinion. 0.6 gramme salvarsan (emulsion in albolene made in our own pharmacy) was injected into the left scapular region. In a few days the eyes began to improve, corneæ and irises cleared and conjunctival-scleral injection subsided. The tissues about the point of injection of salvarsan became painful, and an ulcer formed with sloughing base upon which was attached by a pedicle a necrosing mass of tissue marking the point of the needle stab. May 22d, improvement seemed to cease, inunctions were resumed for 16 days, when the patient left the hospital and was put on pot. iod. Aug. 29th, at dispensary: some ciliary injection o. u., irises sluggish, some photophobia and pain. *R.* Merc. protoiod. and atropin.

This case showed marked improvement from salvarsan, but showed also some fault in its application, either too large a dose for one injection or an imperfect emulsion with a resultant arsenic slough, a complication to be avoided. I believe that multiple injections and into deeper and large muscle tissue, thus avoiding superficial sensory nerves and fascia, would have obviated this unpleasant result.

The remainder of this series were treated by fractional doses of 0.1 g. of salvarsan emulsified in 1 c.c. of an acid-free water-free oil, a perfect pharmaceutical preparation. This was given intramuscularly

into the glutei, with one exception, using an Ehrlich-Hata record syringe with a No. 17 B. & S. gauge needle. An injection of 1 c.c. of the emulsion at body temperature into a single point constituted one treatment, which was repeated in a few days or when improvement seemed to cease. Great care was maintained to render the procedure aseptic in every particular. Surgical preparation of the field before injection and sealing the puncture with collodion afterward eliminated all trouble from infection. Local anesthesia by ethyl chlorid was used and pain was seldom complained of at the time of injection or subsequent to it.

All patients were put to bed for twenty-four hours. In a few cases a slight reaction, in the form of a rise of temperature and increased pulse rate, was noticed, otherwise no ill effects followed. In those cases in which blood and urine analyses were made no alteration was apparent from the treatment.

2. No. 8294—12, Miss D., aged 21, American, school girl. Previous history negative. May 15th, 1912: three months ago an ulcer started at inner canthus of o. d., and a little later a similar ulcer formed at the mucocutaneous surface of the right naris which gradually became worse with a nodular indurated edge and angry base having a discharge of foul odor. No specific history obtainable; no Wassermann. Clinical diagnosis, *granuloma syphilitica*. For one month local applications and remedies gave little improvement beyond cleanliness and relief from pain. June 14th: R. Protoiod. June 19th, condition unchanged; 0.1 g. salvarsan was given into left interscapular region. July 10th: ulcer healing; 0.1 g. salvarsan given into right interscapular region. July 17th: ulcers nearly healed; discharged from the hospital to report at dispensary. About one month later was seen by a nurse who reports ulcers fully healed.

3. No. 98—13, Mr. D., aged 20, American, machinist's helper. Had pertussis at one year, divergent squint o. s. resulting; diphtheria at ten years, no sequelæ; scarlet fever at 17 years; influenza later the same year without sequelæ; Hutchinsonian teeth; denies specific history. May 9th, 1912: one month ago o. d. began troubling, cornea cloudy, iris sluggish, episcleral and conjunctival vessels injected, considerable pain and photophobia. O. s. slightly involved. Clinical diagnosis, *keratitis et episcleritis syphilitica* o. u.

June 4th: entered hospital. Mydriatics and indicated remedies had little effect during one month's treatment. June 12th: 0.1 g. salvarsan

into left gluteus; slight improvement next day. June 18th: 0.1 g. salvarsan into right gluteus. June 21st: irises more involved. \mathcal{R} . Atropin t. i. d. o. u. (June 20-24 gastroenteritis with slight temperature due to dietetic indiscretion). June 28th: 0.1 g. salvarsan into right gluteus. July 6th: condition about the same. \mathcal{R} . Atropin continued. July 13th: \mathcal{R} . Mercurial inunctions for eight days. July 21st: considerable pain; \mathcal{R} . Asparin, grs. 5, t. i. d. July 23d: pain relieved, asparin discontinued. Aug. 2d: repeat inunctions (4). Aug. 15th: \mathcal{R} . Merc. sol. Aug. 20th: discharged; o. u. quite clear, no pain, no photophobia.

Oct. 2d: returned. \mathcal{R} . Atropin o. u. Oct. 4th: 0.1 g. salvarsan into right gluteus. Oct. 7th: 0.1 g. salvarsan into left gluteus. Oct. 12th: 0.1 g. salvarsan into right gluteus; slight improvement day after each treatment. Oct. 15th: \mathcal{R} . Rhus tox. Oct. 25th: improved o. u. Nov. 7th: Protoiod., 5 grs. increasing to 15 grs. t. i. d. Nov. 19th to 26th: mild tonsillitis. Dec. 2d: 0.1 g. salvarsan into right gluteus. Dec. 4th: says he has clearer distant vision. Dec. 30th: r. v. = 20/50, l. v. = 20/200—; amblyopia exanopsia. Some corneal opacity, cannot get fundi. Feb. 2d: discharged from the hospital. March 22d: r. cornea very hazy, feeling good; working. \mathcal{R} . Kali iod. ix.

I think this case would have received more benefit from larger doses, slight improvement followed each treatment, but it was not marked. April 21st, Wassermann +++++. \mathcal{R} . Kali iod. ix continued.

4. No. 4477—13. Edna C., aged 7, American, calcarea carbonica type, wedge-shaped teeth. Father is a masseur; partial admission by mother that father was syphilitic. Oct. 4th: in dispensary; photophobia, inflamed and cloudy cornea. Clinical diagnosis, *keratitis parenchymatosa syphilitica* o. u. \mathcal{R} . Scopolamin, dionin and aur. mur. Oct. 8th: improved. Dec. 11th: some involvement of postauricular lymphatics. \mathcal{R} . Calc. iod. Dec. 27th: inunctions daily for four days. Feb. 3d: much improved. Feb. 28th: inunctions for four days with slight improvement. April 4th: entered hospital. Corneæ ground-glass appearance, postcervical glands enlarged bilaterally. 0.1 g. of salvarsan into left gluteus. Mydriatics continued. April 8th: 0.1 g. salvarsan into right gluteus. April 9th: o. u. improved, postcervical glands reduced. April 14th: 0.1 g. salvarsan into left gluteus. April 16th: corneæ clearer. April 22d: Wassermann +++++. April 25th: 0.1 g. salvarsan into right gluteus. April 27th: corneæ clearer. April 30th: \mathcal{R} . Mercurial inunctions daily. Protoiod., grs. v t. i. d. May 2d: corneæ quite clear, no inflammation; some opacities o. u.

5. No. 526—13. Evaline M., aged 8, American, father truck-driver. Paternal side shows tuberculosis. Mother had several miscarriages. One brother died at eleven months old from cervical adenitis and right eye trouble which started at three months. At two years started having trouble with o. d. and discharge from both ears, after which cleared up cervical glands enlarged and at four years had one gland enucleated (diagnosis, caseous tubercular). At five years had scarlet fever and diphtheria. At six years another gland broke down and was enucleated. Later had right facial erysipelas. Usually has exacerbations of adenitis during the winter. Is cheerful, does not have pain, teeth of Hutchinsonian type. Nov. 2d, 1912, entered hospital: marked photophobia and lacrymation of o. d. for some time. Diagnosis, *keratitis ulcerosa syphilitica?* o. d. R. Atropin, argyrol, rhus tox., with little effect. Nov. 11th: 0.1 g. salvarsan into left gluteus. Nov. 21st: 0.1 g. salvarsan into right gluteus. Dec. 9th: 0.1 g. salvarsan into left gluteus. O. d. much improved, gland reduced. Dec. 27th: marked improvement. Jan. 3, 1913: 0.1 g. salvarsan into right gluteus. Jan. 4th: opens o. d. much better, less photophobia, ulcer healing. Jan. 7th: blood showed—erythrocytes, 4,750,000. Leucocytes, 10,500. Hæmoglobin, 85 per cent. Polymorphonuclears, $67 \frac{2}{3}$ per cent. L. lymph., 12 per cent. S. lymph., 18 per cent. Eosinophiles, 2 per cent. Basophiles, $\frac{1}{3}$ per cent. Had been diagnosed a form of Hodgkins' disease for which x-ray treatments were given before coming to us.

Jan. 11: 0.1 g. salvarsan into left gluteus. Jan. 23d: R. Calc. iod.; right cervical glands enlarging. Jan. 29th: glands receding, eye improved, counts fingers at three feet. 0.1 g. salvarsan into left gluteus. Jan. 30th: swelling over right submaxillary and parotid. 11 a. m., 103.4° ; pulse, 140; resp., 34; lips dry, tongue red, no headache, pain in right neck. R. Belladonna. Jan. 31st: temperature and pulse gradually down to 99° and 112 at 8 a. m., and up to 104.6° and 148 at 5 p. m. Induration over right face of dusky red hue which extended to the nose and back of ear. Suspected erysipelas. R. Belladonna and rhus tox., ichthyol unguentum, 5 per cent. This condition gradually subsided until normal was reached on Feb. 5th. Feb. 10th: eye showing marked improvement. March 11th: sublingual gland broke down with slight discharge. March 16th: r. v. 20/100, with — 3. s. = 20/40; l. v. 10/200, — 3. s. improves. Old corneal opacities; cannot get fundus. March 18th: left the hospital. April 5th: slight

cloudiness of cornea, o. d. R. Aur. mur. April 17th: phlyctenule on conjunctiva o. s. April 26th: eyes clearer. May 6th: Wassermann negative. May 14th: small punctate opacities in right cornea, glands reducing; patient gained much in weight and feels fine.

I do not consider the glandular induration with accompanying rash due to salvarsan but rather think it was a slight erysipelas infection.

6. No. 634—13. Catherine B., aged 8, American, father is bill-poster for circus and is an alcoholic with history of gonorrhœa and syphilis. Mother is "clean," had miscarriage before and after birth of patient. Nov. 7th, 1912: had pneumonia at two weeks of age, measles at 7 years; one year ago when starting in school o. u. began troubling; six months ago thyroid became enlarged and painful. An abscess is forming. Is stunted in growth, hydrocephalic head, partial ankylosis of both elbows. Dispensary record shows: Sept., 1911, *keratitis parenchymatosa* o. u., nystagmus, stricture of right lacrymal duct. Jan. 2d, 1913: Wassermann +++++. Now had photophobia, marked cloudiness of corneæ with inflammation. Diagnosis, *Syphilitic parenchymatous keratitis, both eyes, with stricture of the right lacrymal duct and syphilis of the thyroid*. Blood count—erythrocytes, 4,250,000. Leucocytes, 12,500. Hæmoglobin, 70 per cent. V., o. u., hand motion at 1 foot. 0.1 g. salvarsan into right gluteus. Jan. 6th: o. d. much improved. Jan. 7th: urinalysis—450 c.c. for 24 hours, sp. gr. 1022, shows poor elimination. Jan. 11th: 0.1 g. salvarsan into left gluteus. Jan. 23d: thyroid abscess which spontaneously opened in December is now cleared up, gland slightly enlarged and inflamed bilaterally. Jan. 27th: v., o. u., fingers at 3 feet. Jan. 29th: 0.1 g. salvarsan into left gluteus. Jan. 31st: right sac clean, vision better, thyroid improved. Feb. 14th: v., o. u., fingers at 6 feet. Left the hospital next day. May 12th: punctate opacities in both corneæ, no inflammation, slight discharge from right sac.

7. No. 1063—13. George L., aged 15, American, only child of consanguineous marriage. Mother died at 33 from alcoholism and tuberculosis. Father gives history of gonorrhœa before marriage. History of ophthalmia at 2 weeks, pertussis at 9 months, measles at 7 years, scarlet fever at 8 years and eyes became worse. Has had chronic bronchitis for a few years, which is now present. Has been under observation for 8 years at which first time eyes were very bad. April 20, 1912: dispensary record shows conjunctivitis catarrhalis et blepharitis ciliaris. In 1909, double tonsillectomy and adenoidectomy.

Oct. 16, 1912, entered hospital. Intense photophobia, blepharospasm, lacrymation, corneæ hazy and inflamed. V. o. u. fingers at 3 feet. Diagnosis, *keratitis parenchymatosa syphilitica* o. u. (no Wassermann.) Oct. 17th: 0.1 g. salvarsan into left gluteus. Oct. 24th: 0.1 g. salvarsan into right gluteus. Nov. 20th: 0.1 g. salvarsan into left gluteus. Nov. 22d: vision is clearer, less photophobia, less lacrymation; patient remarked on improvement day after each treatment. Dec. 2d: 0.1 g. salvarsan into right gluteus. Jan. 8th, 1913: 0.1 g. salvarsan into left gluteus. R. v. counts fingers at four feet, l. v. counts fingers at six feet. Jan. 11th: o. u. fingers at twelve feet. Corneæ clearer. Feb. 3d: goes about the ward with freedom, great light tolerance, corneæ clear but for fine opacities. Left hospital. March 4th: slight return of condition.

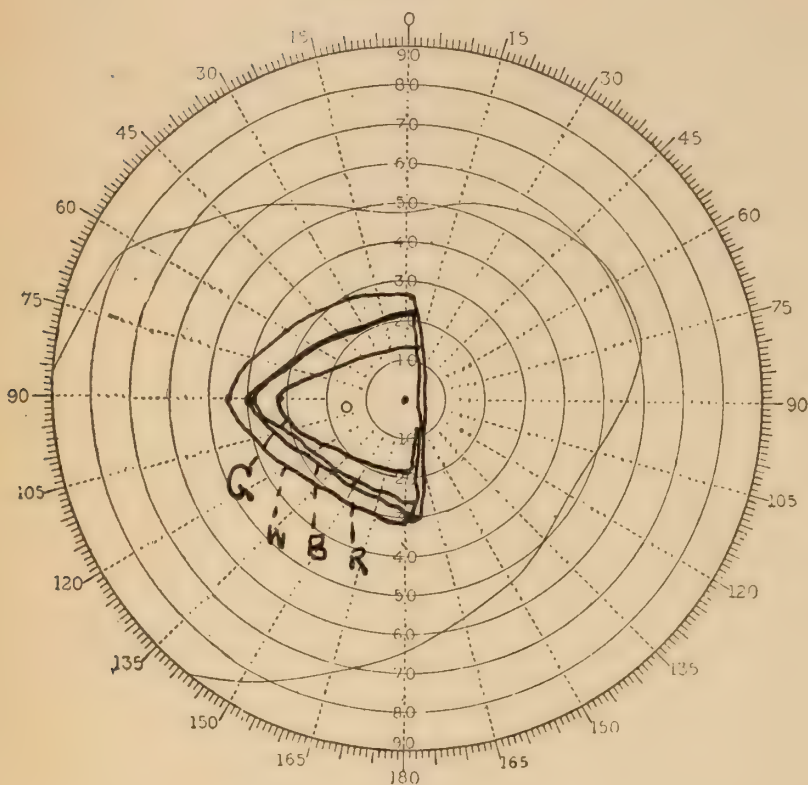
8. No. 2034—13. Ed. H., aged 26, American, truck driver Nov. 6th, 1912: two years ago had initial lesion, three months later gradual loss of vision o. u. R. v. 20/200, l. v. 20/100. Diagnosis, *neuroretinitis opticus et atrophía choroideæ et retinitis syphilitica* o. u. Nov. 11th: Wassermann + + + +. Feb. 18th: entered the hospital; 0.1 g. salvarsan into right gluteus. Feb. 20th: negative galvanism daily o. u. Feb. 22d: 0.1 g. salvarsan into left gluteus. Feb. 24th: slight improvement; l. v. now 20/70. March 5th: 0.1 g. salvarsan into right gluteus; left hospital in two days. March 20th: r. v. 20/100, l. v. 20/40.

9. No. 3095—13. May R., aged 13½, school girl, American, father is a janitor. Had poor health until 8 years old; convulsions at 18 months; pneumonia three times, at 4, 5 and 6 years; measles during the time of pneumonia; pertussis at 8 years. Dec. 4th, 1912: three months ago began having difficult vision. Three other children in the family younger without eye trouble. Now has inflamed conjunctiva and cornea with photophobia o. s. Some old opacities of right cornea. Is hyperopic, wearing + 3 s. o. u. Slight convergent strabismus. R. v. 20/100, l. v. 15/200. Very deaf a. u., gradually increasing. Diagnosis, *keratitis parenchymatosa* o. s. et *otosclerosis syphilitica* a. u. Jan. 22d, 1913: Wassermann + + + +. Jan. 29th: entered hospital; r. v. 20/100, l. v. 20/200. 0.1 g. salvarsan into left gluteus with clearer vision and less infection on second day. Feb. 3d: 0.1 g. salvarsan into right gluteus. Feb. 5th: eyes clearer; r. v. 20/70, l. v. 20/70; ears slightly improved; left hospital. Feb. 7th: left cornea more hazy; rash and itching over right face and neck.

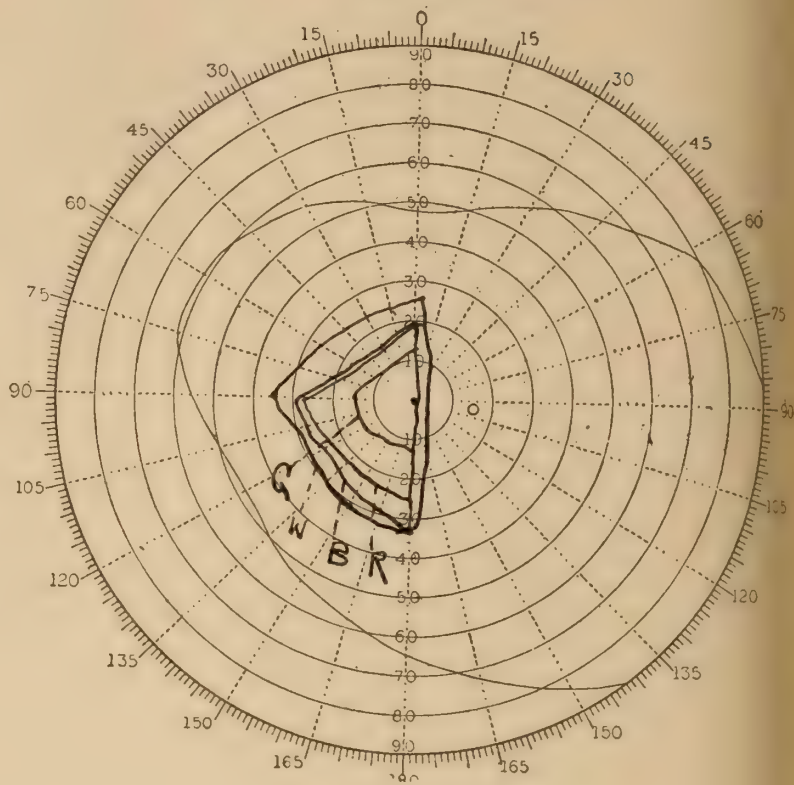
R. Kali iod. Feb. 17th: re-entered the hospital; right cervical glands enlarged, rash subsiding, tongue yellow, feels well. Temperature, 100.4° ; pulse, 108. R. Phytolacca. Feb. 21st: induration stony hard and great pain. March 2d: R. Baryta carb. March 4th: much better. Temp., 100.2° ; pulse, 104. March 7th: gland softening; under anæsthesia right submaxillary glands were opened and three ounces of green pus were evacuated. Eye condition good. March 22d: another small gland incised; allowed to go home. April 14th: a third gland opened, which showed a mixed infection of staphylococci and streptococci. April 23d: abscesses still discharging, which cleared up under stock mixed vaccines in ten days. May 7th: o. u. fine punctate opacities, no inflammation, feels good.

10. No. 5800—13. Mrs. E., aged 40, housewife, German. Feb. 24th, 1913: twelve years ago was suddenly unable to read clearly, following an illness of three weeks during which she was drowsy and tired; physician said paralysis. Later consulted Dr. Knapp, of New York, who advised no help. Had similar attack 20 years ago in Germany. Lost hair in patches nine years ago. Eyes gradually improved until four years ago when vision rapidly failed but improved under treatment until another exacerbation ten days ago; vision failing fast, sees double, is very apprehensive and suicidal. R. v. 18/100, with + 0.50 s. = 18/70; l. v. 18/70, nothing improves. Can match colors but cannot always name them correctly; asked to write a sentence from dictation is unable to read the same after the lapse of a few minutes. Perimeter test shows a right homonymous hemianopsia (see charts) with markedly lessened fields, the right more involved. March 20th: Wassermann + + + +. Diagnosis, *syphilitic central lesion involving left visual tract*. March 31st: entered hospital; 0.1 g. salvarsan into left gluteus. April 5th: 0.1 g. salvarsan into right gluteus; sees a little better the next day. April 8th: 0.1 g. salvarsan into right gluteus. April 10th: 0.1 g. salvarsan into left gluteus. April 11th: feels much better generally, less apprehensive, vision clearer. April 15th: 0.1 g. salvarsan into right gluteus; clearer vision, less double vision. April 18th: 0.1 g. salvarsan into left gluteus; has more distinct vision. April 19th, improved: r. v. = 20/30 numbers, l. v. = 20/30 numbers; left the hospital. April 22d: Wassermann + + + + (unchanged). April 23d: perimeter test shows left field increased about 70 per cent., the right unchanged. April 26th: r. v. = 20/20 numbers, l. v. = 20/20 numbers, has some difficulty reading letters. May 5th: r. v. 20/30

LEFT

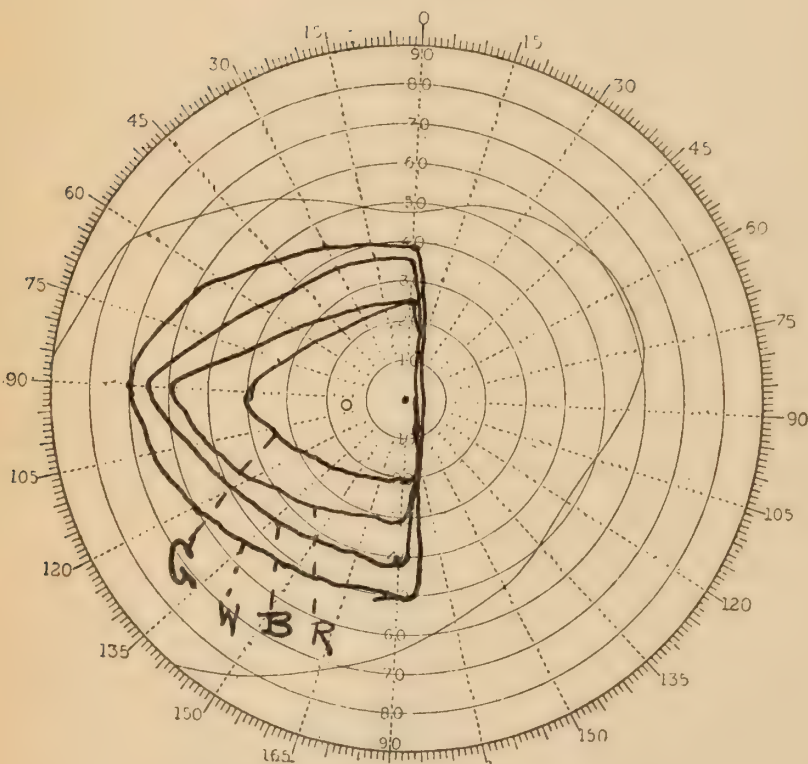


RIGHT

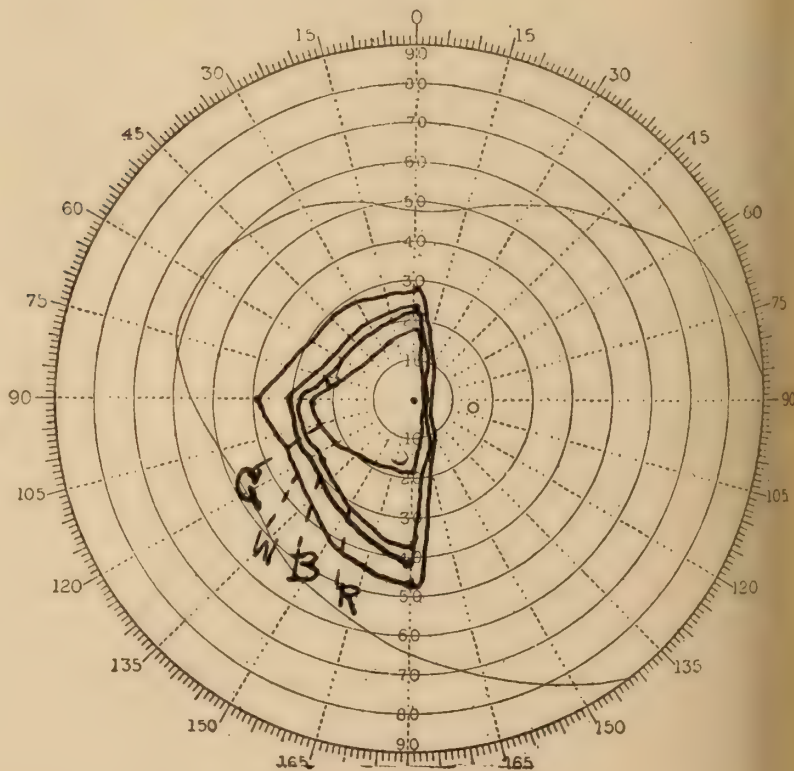


CASE 10. March 3, 1913.

LEFT



RIGHT



CASE 10. April 23, 1913.

letters, l. v. 20/30 letters. Feels better in every way and has gained in weight. This patient had six doses of one decigram over a period of 20 days with phenomenal results considering the nature and duration of the condition.

11. No. 3782—13. John A., Norwegian, aged 26, carpenter and sailor. Dec. 17th, 1912: three weeks ago had sensation of a foreign body in o. d. Cornea now ground glass appearance, circumcorneal injection, pupil contracted; denies specific history. In a few days o. s. became involved. Diagnosis, *kerato-iritis* o. u. Jan. 6th, 1913, entered hospital, and for two months was carefully treated with mydriatics, indicated remedies, vaccines and mercurial inunctions with little effect except from the latter. He left the hospital and one month later in dispensary a Wassermann ++++ showed that the condition was syphilitic. April 21st: re-entered the hospital; corneæ and irises hazy; r. v. 20/50, l. v. 6/200; bursitis left knee. 0.1 g. salvarsan into right gluteus. April 25th: 0.1 g. salvarsan into left gluteus. April 26th: cornea much clearer, irises react better. Left the hospital to return for further treatment, did not return. This case showed immediate improvement under the small doses of salvarsan after a long period of other treatment without avail.

12. No. 6343—13. Charles L., aged 3, American, father is a fish salesman. Paternal history suspicious.

March 10, 1913, entered the hospital; great photophobia, blepharospasm, lacrimation, eczematous lids, each cornea involved deeply. Diagnosis, *keratitis ulcerosa syphilitica* o. u. For one month had mydriatics, indicated remedies, mercurial inunctions and protoiod. successively with noticeable improvement only after mercury. April 5th: marked vascular proliferations on each cornea. 0.1 g. salvarsan into right gluteus. April 10th: some improvement; o. s. 0.1 g. salvarsan into left gluteus. April 12th: less photophobia, opens eyes well, feels better. April 14th: 0.1 g. salvarsan into right gluteus. Wassermann negative, probably due to mercurial inunctions and protoiod. April 21st: o. d. cornea clearer, o. s. pustule on cornea. April 22d: 0.1 g. salvarsan into right gluteus. April 25th: opens eyes better, o. s. much improved. Resumed protoiod. and mercurial inunctions. April 27th: patient has good light tolerance, goes about the ward with freedom. May 14th: both corneæ fine sclerosing opacities, no inflammation.

13. No. 7240—13. Stella W., aged 4, born in Poland. April 4th, 1913: six weeks ago had inflammation o. s., one week later in o. d.;

after weeks saw a physician who advised hospital treatment, which was delayed three more weeks; great number of new vessels about periphery of cornea with small celled infiltration and some sloughing of central portion, not deep. Both knees tender, fluid under patellæ. Marked photophobia and spasm. O. u. perceives light. Diagnosis, *keratitis parenchymatosa syphilitica* o. u. April 5th, entered hospital. Atropin, dionin, local heat for one week which improved a little. April 12th: Wassermann ++++. April 14th: 0.1 g. salvarsan into left gluteus. April 16th: opens eyes better, counts fingers at one foot. April 18th: corneæ clearer; 0.1 g. salvarsan into left gluteus. April 22d: 0.1 g. salvarsan into left gluteus. April 27th: can outline irises, corneæ much clearer about periphery. Patient goes about the ward with freedom. May 4th: slight retrogression o. d. R. Mercurial inunctions daily. May 7th: 0.1 g. salvarsan into right gluteus, some improvement noted next day. Patient still under treatment.

14. No. 7400—13. Ethel A., aged 17, American. April 8th, 1913: at first menstruation (13 years) became ill with sore throat. Tinnitus aurium developed soon afterwards, then vertigo and deafness which continued into total deafness one year ago. Had measles at seven years and scarlet fever at 11 years, without sequelæ in either case. Two months ago o. s. began troubling, and for eight days has had photophobia and lachrimation, now has salmon patch at upper aspect of cornea, loss of corneal epithelium. Had right corneal ulcer one year ago; shins are sore to touch. Diagnosis, *keratitis parenchymatosa* o. s. et *labyrinthitis syphilitica* a. u. April 30th: Wassermann ++++. May 2d: upper 2/3 of cornea densely infiltrated. 0.1 g. salvarsan into right gluteus. May 7th: 0.1 g. salvarsan into left gluteus. May 14th: cornea slightly improved, eye easier, less photophobia, no apparent change in ear condition. Patient still under treatment.

15. No. 7474—13. George S., aged 43, cook, Austrian. April 10th, 1913: history of syphilis twenty years ago; two months ago vision began to fail rapidly. R. v. fingers at one foot, l. v. hand motion at 15 inches. Discs very white. Diagnosis, *atrophia n. optici syphilitica* o. u. April 14th: 0.1 g. salvarsan into left gluteus. April 16th: Wassermann ++++. April 18th: 0.1 g. salvarsan into right gluteus. April 19th: says he sees better than two days ago. April 22d: 0.1 g. salvarsan into right gluteus. April 25th: 0.1 g. salvarsan into left gluteus. April 26th: can see moving cars from second floor window. April 29th: 0.1 g. salvarsan into right gluteus. May 22d: r. v. hand motion

at two feet, l. v. hand motion at 6 feet. May 5th: 0.1 g. salvarsan into left gluteus. May 10th: left the hospital. R. Strychnin 2x. This case showed considerable improvement in o. s., particularly so for such a pathologic condition.

16. No. 7569—13. This case is added for its pathologic and therapeutic interest. Mr. L., aged 54, piano varnisher, a Swede, in the U. S. twenty years. April 14th, 1913: history of syphilis ten years ago. Last three years has had "rheumatism" and "eczema." O. d. had troubled him for two weeks. April 21st: counts fingers at three feet, disc very hyperemic. Diagnosis, *papillitis syphilitica* o. d. 0.1 g. salvarsan (aqueous solution) given intravenously. April 28th: r. v. 8/20; May 5th, r. v. 20/100.

CASE	DIAGNOSIS	NO. TREATMENTS	RESULTS	REMARKS
1	Kerato-iritis o. u.	1 of 0.6 gramme	Good.	Arsenic slough and ulcer at point of injection.
2	Granuloma syph, right eyelid and right naris.	2 of 0.1 gramme in 21 days.	Excellent.	
3	Kerato-iritis et episcleritis o. u.	7 of 0.1 g. in 6 mo.	Fair.	Condensed treatment probably more effectual.
4	Keratitis parenchymatosa o. u.	4 of 0.1 g. in 21 days.	Good.	
5	Keratitis ulcerosa o. d.	6 of 0.1 g. in 80 days.	Excellent.	Cervical adenitis complicated.
6	Keratitis parenchymatosa o. d. Thyroid abscess.	3 of 0.1 g. in 27 days.	Excellent.	
7	Keratitis parenchymatosa o. u.	5 of 0.1 g. in 83 days.	Fair.	
8	Atrophy choroideæ et retinæ; neuroretinitis o. u.	3 of 0.1 g. in 15 days.	Good.	Should have had more treatments.
9	Keratitis parenchymatosa et otosclerosis.	2 of 0.1 g. in 5 days.	Good.	Cervical adenitis complicated.

CASE	DIAGNOSIS	NO. TREATMENT	RESULTS	REMARKS
10	Central lesion; homonymous hemi- anopsia.	6 of 0.1 g. in 19 days.	Excellent.	Left field marked- ly increased.
11	Kerato-iritis o. u.	2 of 0.1 g. in 4 days.	Good.	Insufficient num- ber of treatments.
12	Keratitis ulcero ^{sa} o. u.	4 of 0.1 g. in 17 days.	Excellent.	
13	Keratitis parenchy- matosa o. u.	4 of 0.1 g. in 23 days.	Excellent.	Still under treat- ment.
14	Labyrinthitis a. u. et keratitis paren- chymatosa o. s.	2 of 0.1 g. in 5 days.	Good.	Still under treat- ment.
15	Atrophia n. optici o. u.	6 of 0.1 g. in 21 days.	Fair.	
16	Papillitis o. d.	1 of 0.5 gramme.	Excellent.	

3 Kerato-iritis, 6 Parenchymatous keratitis, 2 Ulcerative keratitis, 1 Granuloma, 1 Neuro-retinitis, 1 Papillitis, 1 Atrophy of optic nerve, 1 Atrophy of retina and choroid, Central lesion, 1 Episcleritis, 1 Thyroid abscess, 1 Otosclerosis and 1 Labyrinthitis.

HOMŒOPATHIC THERAPEUTICS.

The following group of three cases has to do mainly with homœopathic therapeutics. I would fall far short of doing my duty if I should not say something for the excellent work that is being done with the potentized remedy. It was in the New York Ophthalmic Hospital that the pioneer efforts of Drs. T. F. Allen and George Norton, in working out definite drug pathogenesis, have contributed to this society a therapeutic armamentarium largely through which we rightfully claim our better ability to treat conditions of the eye, ear, nose and throat.

1. No. 2433—12. Rose T., aged 18 months, Italian. April 18th, 1912: one year ago had measles, with conjunctivitis in o. s. following, which cleared up in one month under sulphur 3x and argyrol 5 per cent. Now she has keratitis ulcero^{sa} o. u. with marked photophobia and lachrimation. Patient is from a very poor east-side home, poorly nourished and under-developed, rachitic. Has had a great deal of

gastrointestinal trouble due to milk diet. Diet changed gradually to soft foods. May 18th: fissures at outer canthi, roughened skin behind ears. *R.* Graph. 6x, 1 tab. q. i. d. July 1st: child much improved, eyes open, crawls about and is lively. *R.* Sulphur 30, t. i. d. for two weeks, which was repeated in two weeks. Aug. 27th: child walks some, plays, talks some, eye free from inflammation, some resultant corneal opacities. Left the hospital.

2. No. 5862—12. Mary O., Irish, aged 16 months. March 11th, 1912: entered hospital with conjunctivitis purulenta o. u. of three weeks' duration. Marked chemosis of palpebral conjunctiva with overlapping of upper lids. Moist rash back of the ears and at hair line on the scalp, small abscesses at root of nails. Photophobia is intense and child fretful. *R.* Psorinum 200 b. i. d., argyrol 10 per cent., bichloride irrigation. April 26th: slight improvement. *R.* Sulphur 1x, every three hours for one week. May 29th: graphites 30 t. i. d., which improved slightly in a few days, and then became worse, when remedy was discontinued. June 28th: graphites 30 t. i. d. for one week, no results. July 17th: graphites 200 t. i. d. for one day. July 22d: no change; sulphur 30 t. i. d. for three days. July 29th: no change; graphites 6x q. i. d. Improvement was noticeable after a few days, and the condition rapidly cleared up. August 14th: abscesses cleared up, rash gone except a small area behind left ear; slight induration in upper right lid; no discharge; eyes open, child well nourished and happy. Aug. 25th: left the hospital, slight haziness of right cornea. This was a case of differentiating the potency of graphites, the sixth curing the case after the 30th and 200th had failed.

3. No. 10137—12. Minnie G., aged three years, Italian, from poor home, is dirty and poorly nourished. July 8th, 1912: has had trouble with o. s. for two months, now ulcer of cornea. *R.* Argyrol and scopolamin, hepar 6x. July 19th: returned to the hospital. Marked photophobia and lacrimation o. u. Diagnosis, corneal abscess o. u. *R.* Same. Aug. 22d: decided eczematous condition of the lids and scalp. Graphites 3x, 4 hours for one week with considerable improvement. Sept. 2d: Sulphur 12x q. i. d. for three days. Sept. 5th: medorrhinum 200, one dose. Improvement was more marked after the latter, and the condition rapidly cleared up. Sept. 15th: eyes clear, some corneal opacities resulting.

Ann Arbor, Mich.

DISCUSSION.

M. A. BARNDT: I have been slow in taking up salvarsan, feeling that considerable more work should be done with it before we would be justified in applying it to our own cases. The cases reported in the paper seem favorable to it, but we must remember that at the same time the homœopathic remedy in various strengths and potencies was used. That fact throws a doubt upon what salvarsan would do unaided in such a group of cases. The homœopathic remedy has a tremendous field and we do not give the necessary time and study to it, to make effective prescriptions. It is one of our troubles as specialists that however expert we may be in operating we are not experts in the use of homœopathic remedies, the reason being that we do not give the time and study necessary to become experts. Most of the prescriptions made by specialists would be laughed at by expert homœopathic therapeutists, and it is my opinion that they would beat salvarsan and all the newer modes, if they were applied with skill. I have seen a number of bad cases of arsenical poisoning due to salvarsan, perhaps due to too large doses. Some of the men in my city are trying the sodium cacodylate with fair success.

I asked one man who had taken up the salvarsan treatment early and used it in every case of syphilis, what his results had been, and he replied that about two per cent. were cured by it. For these reasons I have been backward in taking it up myself. I do not believe that it is on a sound scientific basis as yet, and am willing to wait further developments. This, it seems to me, is enough to preclude its use on private patients. The hospitals may legitimately experiment with it and furnish the profession with data upon which to base an opinion of its merits. As for myself I still prefer the homœopathic remedy.

PRESIDENT SHEPARD: Two of the cases cited were from my clinic. One, a girl of five, had a history of meningitis and hydrocephalus when an infant. When presented at the clinic she had parenchymatous keratitis and phlegmonous dacryocystitis. Two months of homœopathic treatment showed little result. While under treatment the thyroid gland suppurated and was quite destroyed. Wassermann++. Immediate improvement followed the use of salvarsan. No potash was given.

The other case, a girl of 13, had parenchymatous keratitis tympanic sclerosis, ankylosis of elbow joints and Hutchinson teeth. Wassermann ++.

After salvarsan the eye showed immediate improvement, but the submaxillary glands swelled and quickly suppurated. It seemed to me that the glandular trouble was caused by the salvarsan, but the case has cleared up perfectly.

FRANK B. MACMULLEN: I was especially glad to hear this paper because we have been using the specific treatment for syphilitic affections of the eye at Ann Arbor. In my opinion this treatment has

passed far beyond the experimental stage; as to its value, that is settled. The only question in my mind is how we shall give it, and what size dose we shall use.

We have used neosalvarsan instead of the older preparation, because in our experience ulcerations and sloughs have never followed its use. The older intravenous method of injecting neosalvarsan has given way to numerous methods of intramuscular injection. One of the best of these is the method of Wolbarst: the neosalvarsan is thoroughly rubbed up in an agate mortar with about three cubic centimeters of sterile chemically pure glycerin and four or five drops of a 1 per cent. solution of beta eucain. After sterilizing the field with iodine and alcohol the solution is injected into the glutei muscles, one cubic centimeter in a place. The pain in most cases is very slight and easily controlled with an injection of a small dose of morphin.

Among our recent cases have been four cases of iritis. In one of these salvarsan had been given by the intravenous method without results. Neosalvarsan was injected, 0.6 gramme, according to the above technique, and in a week the case had entirely cleared up. Another case had such intense pain about the eye that he was unable to sleep. In eight hours after injection the pain ceased and the patient continued to improve rapidly, showing no signs of iritis when seen a few weeks later.

The other cases were ordinary cases and made uneventful recoveries. In two cases of disseminated choroiditis, one showed improvement and the other no improvement whatever. This was a case of some twenty years' standing. Three cases of interstitial keratitis were treated, two were due to congenital syphilis and the other was of the acquired variety. In the congenital cases the children had intense photophobia, lacrimation and the characteristic infiltration of small cells found in this disease. The day following injection there was an improvement in the condition, the patient being able to look up into the light, and the lacrimation was diminished. The acquired case was a chronic one and showed some symptoms of tabes. Two injections were required to clear up the eye symptoms in this case. One case of optic atrophy was treated with no results, either favorable or detrimental.

We follow up the treatment with mercury and potassium iodid, giving neosalvarsan in doses of 0.6 gramme as often as seems necessary.

I have enjoyed the doctor's paper very much; my only criticism of his method would be the use of neosalvarsan in the maximum dose instead of the small doses of salvarsan.

W. H. PHILLIPS: I was much interested in this report, especially in the reported rapid cures of interstitial keratitis. This disease occasionally takes a year under the old treatment. Are these reported cases exceptional, or do all cases of interstitial keratitis respond so rapidly to neosalvarsan?

W. D. ROWLAND: These reports are offered for what they are worth and not because I am advocating the treatment in all cases. I simply want to show that there is something in the treatment and that it is better in some cases than anything else that we have. The last three cases reported were not considered to be syphilitic. The series presented in my paper, although not very numerous, do prove, it seems to me, that the small doses are effectual. Most of these patients showed improvement within twenty-four to forty-eight hours after injection. The very next day after beginning of treatment many of them would show marked improvement. This shows that the drug was rapidly absorbed and that there was no toxicity manifested. The method is practically painless; the solution in glycerin is more painful than that in oil. No ill effects were observed in the nervous system nor in the optic or auditory conditions. As I used it it is convenient, can be given in your office and the patient allowed to go home. A point to be observed is that you must have a good pharmaceutical preparation; it must be in a perfect solution. The slight trouble in the first case mentioned was due to an imperfectly prepared solution, the arsenic not being perfectly diffused. These cases may not be cured of syphilis; I do not affirm that they are. We have cleared up symptoms for the present that had been running for eight years in one case and upon which all our remedies prescribed had been ineffectual. Here a few injections of one-tenth gramme relieved in a few days.

I think that Dr. Shepard, if he will pardon the correction, is mistaken about the thyroid abscess coming after the injections; my recollection is that it had broken down before the patient entered the hospital.

Most of the cases reported here are long drawn out latent ones or hereditary conditions. In regard to the dose, the larger dose is more effective in recent cases. I think that the maximum dose, whatever that is, should be given in recent cases. With the x-ray it has been found that the maximum dose is more effectual in malignant conditions than smaller doses frequently given. The labyrinthitis case was in Dr. Hallett's clinic; she had two injections of one-tenth each; the eye trouble underwent remarkable improvement, but it is too soon to say anything about the effect upon the labyrinth trouble. Later observations will settle many of the questions about it. Some of the subsequent troubles are probably due to syphilis and not to the salvarsan. Many German observers concede this.

PROGRESSIVE MYOPIA.

C. GURNEE FELLOWS, M. D.,

Chicago, Ill.

REFRACTION has always been an interesting subject, the final word concerning which will probably never be written, and of the various divisions considered under this head myopia is perhaps treated in more varying ways than any other part of this constantly changing science.

I believe it to be practically settled that myopia is not hereditary. It is more apt to develop in a child when one or both of the parents are myopic, but Hirschberg says that ophthalmological investigation proves that very few, if any, newborn children are myopic, but that myopia develops among older children and adults. From all sources of information I am compelled to attribute that development of myopia to the use of the eyes for close work, not necessarily in school, but as a rule developing in the early years of school life.

The well known reference to savages as possessing remarkable far sight is not new to any of you. We have much corroborative testimony which shows that little myopia is found in peasants; that artisans are slightly more subject to this condition; that among clerks it is found in greater proportion; and that in university students the ratio of myopia is thirty-two per cent.

James Ware drew attention to the relation between myopia and school work as long ago as 1813, and from that time to this there has been sufficient support for the idea to warrant a positive statement that there is an uninterrupted and progressive increase in the number of myopic eyes at successive ages, beginning with the earliest school age of about seven years. The majority of all school children who start to become near sighted show a gradual but sure increase in myopia, and statistics from all civilized countries show the same thing: that prolonged near work is apt to develop myopia and the more prolonged and the nearer the work, so much the worse for the children. Not only does Hirschberg refer much of his investigation to prove his point back to the year 1867, but Pollock, in a long paper upon the relation of myopia to school work, refers to the same source

of information, namely, Herman Cohn, of Breslau, whose investigation upon the subject of myopia in elementary schools proves its presence in the ratio of one and four-tenths per cent. In the intermediate grades he found myopia appearing in ten per cent. of the cases, while in high schools twenty-six per cent. of the students were short sighted. He later proved practically the same findings in two thousand school children.

In an article written by Bates, in 1911, reference is made to a functional myopia which may be present when the child is doing close work and its actual presence shown by the retinoscope. The eye does not relax when the child looks at the Snellen test type, and the myopia does not disappear except after complete rest or under the use of atropin. This of course gives us the immediate clue to the treatment of such cases, which he recommends as follows: compulsory use of the Snellen test type in the school room at some time during every day, causing the children to relax the accommodation and read slowly every letter of the type before allowing them to focus their eyes on close work. Whence arose the deduction which he made, that such children as had normal eyes and did not or could not adjust their accommodation accurately for distant vision were very apt to become myopic.

In a case showing apparent very low degree of myopia there may be a question as to whether this is due to spasm of the accommodation or to actual lengthening of the anteroposterior diameter of the eyeball, but when this lengthening begins it is the first pathological basis from which develop those secondary changes which appear more and more prominent and are more and more incurable as the disease progresses—for progressive myopia is a disease, and an acquired one at that.

Adults with the varying forms and degrees of refraction show symptoms of asthenopia, eyestrain, headache and what not, but the peculiar changes which lead to progressive myopia are not in any case mistaken for the well known signs of hyperopia and the various astigmias connected therewith. I have seen an ingenious explanation of how hypermetropic astigmatism or other factors causing poor vision may become of etiological importance in the development of myopia by lessening the near point for all work.

Our knowledge of the cause of increasing myopia gives us the key, by way of prophylaxis, to the situation in the early grades of school.

First, the refraction should be taken and the forms of hypermetropia and hypermetropic astigmatism corrected; school rooms should be light and large, with proper seats, desks at an angle and not too near; blackboards should be used instead of work on paper and slate, and there should be frequent interruptions of close work.

The first of these divisions of prophylaxis, the examination of school children, deserves more comment, but the subject has received such wide publicity that in many schools throughout the country pupils are examined at the beginning of each year, and we need only refer to it here. Factory inspection of all laboring people is also being carried out by a steadily increasing number of firms.

You are all familiar with the pathological changes which develop in progressive myopia; first the lengthened anteroposterior diameter, then sooner or later the stretching of the coats of the fundus, which gradually produces staphyloma posticum. Then follow diseases of the lens, the fundus and choroid, and in later life liquid vitreous and possible degeneration of the retina. Cataract is also more common in a high degree of myopia than in ordinary eyes, and comes at an early age.

Now, as to the correction of myopia by glasses. It has been taught by many able authorities that the full myopic astigmatism should be corrected and the glasses continuously worn, but we find in practice that this is not always the wise course.

Hirschberg has published a classical monograph on the treatment of short sight, in which he states that in the low grades of myopia (-0.75 to -3.00) patients may be allowed a full correction to use constantly; in medium grades (-3.50 to -6.00) entirely or nearly correcting glasses are to be used only for distance purposes, while for near work weak glasses or none at all should be given; in the higher grades of myopia (-6.00 and upwards) two separate pairs of glasses should be given, one for distance and one for near work; while glasses of greater power (-6.00 to -9.00) should not be worn continuously, and for a correction of -20.00 or more some useful glasses should be selected to suit the needs of the patient.

When once myopia has been diagnosed, the case should be under constant supervision, and it is not enough that we correct such cases by properly fitting glasses; we should examine them at frequent intervals in order to establish the rate of progress in the development of myopia. Herman, of London, says that we have all been saying that a child "must not study," or "is advised not to read," but that

our advice has been too negative and we have not been careful enough to lay down positive things which a child must do, though these things ought to be outlined by every conscientious physician.

If our deductions are true, there are surely times when the patient should be under corrected, he should be compelled to relax his eyes sufficiently to see at a distance and compelled to abstain from close work in order to be more constantly relaxed.

This brings us down to the question of individuality in childhood; just as we are teaching the deaf and dumb and blind, and getting wonderful results from individual treatment, there arises an absolute demand that we should do the same thing with myopic children and adapt our teaching to their individual needs.

From this we develop methods of teaching myopes which are different from those for the ordinary child. This involves properly constructed seats for the child to sit upright, desks raised to an acute angle and adjusted to his punctum remotum, and care on the part of the teacher that as much work as possible should be done at the blackboard with large characters and at a greater distance than the punctum proximum.

Total cessation of all near work and the removal of the child from the city to the country, the building up of the physical side of the individual and curtailing the amount of near work or interdicting it entirely, is clearly the plan of treatment when once the disease has become established. However, when progressive changes have been arrested and after due length of time no more myopia has developed, the patient may then be permitted a certain amount of near work.

What of the operative treatment for high myopia? This has been tried, time after time, sometimes with great success and at others with unsatisfactory results; here the most careful discrimination should be used. Hugh Thompson has determined, to his own satisfaction, that the degree of myopia most likely to be changed into emmetropia is 21 D., although the range from this to — 16.00 D. is a fairly wide one. The method most commonly advised are repeated needlings, or in some cases radical needling, to be followed in a few days by removal of the lens substance and a large opening of the cornea, together with discission of the capsule; it is rarely advisable to remove the lens and capsule at one sitting. Distant vision is generally improved, but in many cases at the expense of some sacrifice of near work.

I can hardly refrain from introducing a few clinical cases.

Case 1.—Roland K., age 16. Has never worn glasses, has always

"guessed at things" and gotten some sort of public school education. Retinoscope and refraction reveal — 2.50 o. u. The boy must work, and in spite of all caution as to the amount of work, has developed an increase of — 0.50 in just one year. It is almost safe to say that this rate of progress will go on, and you can readily see that by the time he is 25 years old, at which time we hope the progressive stage to be at an end, he will need — 8.00 for correction. Here is one case where advice can not be followed, for his bread and butter depend on his work.

Case 2.—Clarence A., age 16. Came to me at that time, wearing o. d. — 2.50 c.; o. s. — .50 s. \ominus — 1.00 c. With the best of correction and with cessation from school for the greater part of two years, with his reading done by classmates and hired readers, and with the case carefully considered by himself and his family, he has in less than three years come to his present status, namely, o. d. — 7.00; o. s. — 3.50 s. \ominus — 2.50 c.

Case 3.—J. G. A., age 20 in 1908. Wearing — 9.00 o. u. Had just finished a college course, with continuous development of myopia up to this time. Was about to take up the study of law, but listened to the advice of total rest and for more than four years has done everything to save his eyesight, so that now, at the age of 25, I am allowing him to do more near work; and under homatropin examination he shows practically no more myopia than he had in the beginning of his enforced rest, but with the addition of cylinders secures much better vision. This is a case of rather high myopia which because of enforced rest and the approach of the time of life when we hope progress of the myopia ceases, is probably stationary.

Case 4.—H. V., age 10 in 1907. Wearing — 1.00 o. u. Did continuous school work until the spring of 1913, being six years. Myopia is now — 3.00 o. u. Advice of a year's total rest from work is not to be accepted, because the boy must be prepared for college. This boy has one myopic grandparent.

Case 5.—Miss L. O'C., 42 in 1908. Wearing — 14.00 o. u. Has had gradual development of cataract in one eye, which I needled, with unexpected absorption of the lens and restoration of vision to about twenty-fiftieths. This needling gave us a useful eye and the result has been very satisfactory to me, because we had this eye to fall back on in case the other became useless. This, however, has not happened in the fourteen years since the operation.

820 Marshall Field Building.

DISCUSSION.

CHARLES L. RUMSEY: Of the various forms of ametropia, none requires more study than myopia. While there is now less diversity of opinion on the salient points of treatment for myopia, the laity and the family physician must be taught that these cases require the most assiduous attention of the oculist.

My clinical experience would not endorse the statement seen in literature and expressed by Dr. Fellows that "myopia is not hereditary." Dr. Fellows' statements along this line seem to be contradictory; in one phrase he says that "it is practically settled that myopia is not hereditary," in another he says that "it is more apt to develop in a child when one or both parents are myopic," etc. In so far as heredity consists in the predisposition of tissues to undergo change, in that much does my experience confirm the heredity of myopia, particularly where both parents are myopic. I see no more reason to exclude the hereditary factor in myopia because the newborn are hyperopic, than to exclude tuberculosis or any other taint because the newborn are not then suffering with tuberculosis. etc. While myopia can be acquired by faulty habits, ill health, irritability of the ciliary muscle from astigmia and muscular imbalance, etc., it behooves us oculists to elicit the cause for myopia.

Dr. Fellows rightly places the school room as the place where myopic conditions should be discovered. It therefore means much to the public to hold the examination of the eyes of school children every year in order that any faults of vision may be discovered and corrected, enabling the children to do better mental work. I should like to add that all myopic cases should have examination under atropin. Wherever myopia, particularly progressive myopia, is found among children, the oculist should prescribe not only the proper glasses for the myopia but he should in every instance, institute such hygienic measures as his experience has proven are necessary in myopic cases, even to interrupting the studies of the child for one or more years. Superfluous reading and needle work must be avoided; this should be rigidly enforced. These cases should have a special curriculum in our public school, as do the mentally deficient children. It becomes necessary for these children to do less reading, less studying, and to have more carefully printed books. Myopic children who follow this regime will certainly become more useful men and women. I believe such remedies as jaborandi, physostigma, prunus spinosa, ruta, gelsemium and potassium iodid are beneficial, but the hygienic treatment is paramount. I advocate extremely conservative measures where muscular imbalance exists, but do favor extraction of the lens even with less than 14. D. where the fundus changes are increasing. It is these conditions rather than age which cause me to advise the operation. I always advise operation on both eyes establishing harmony between the accommodation and muscular action of the eyes.

As the public has been educated in other branches of medicine so I believe parents are being educated to care for their children's eyes. My clinical experience would therefore confirm the general principles of the treatment of myopia expressed in Dr. Fellows' paper.

H. D. SCHENCK: The Sage Foundation for the study of school children has the records of the examination of 20,000 children; not of the vision alone but of all other points also. The examinations were not good, in fact they were very defective but such as they are they yield valuable information. The defective features as found by the school inspectors have been corrected to a large extent and great improvement has resulted except in regard to the eye conditions. These have been stationary or grown worse. The examination did not show as many cases of myopia to be progressive as I used to find when I made examinations. That may be due to better refractive work. Cases in which the myopia had increased one or two degrees have generally developed pathological conditions, according to my experience, and I have seen great changes take place between two examinations in the eye conditions. I have seen two or three cases where the first examination showed hyperopia go directly over into myopia at a subsequent examination. From this experience I feel that the examinations should be made with a great deal of care in order to be productive of good results. In some cases it might be necessary to use atropin to overcome and neutralize spasm. Dr. Bates once presented a paper upon the subject of eye troubles of school children; it was presented with the request that the school authorities should take the matter up. I read the paper very carefully myself and also submitted it to several members of this society, asking for an opinion on it. One and all, including myself, condemned Dr. Bates' paper as not proving his contention. As for the Snellen test cards that he recommended, I do not believe that it would be worth the time it took, for after three or four days the dullest pupil would memorize it and it would not be of any use whatever.

In regard to the work of the teachers in testing the eyes as to vision and its increase I must say (and this is the opinion of the Municipal Research Board in New York city) that the examinations made by the teachers outside of the city were much better than those made by the school directors in the city; you all know what an addition to the expense the school medical inspectors are, while the teachers get nothing extra and hence the work costs the State nothing.

The department of education has been hampered in its work by the fact that the school commissioners gave only a part of their time to the school work. Their whole time should be given to the work. We have been able to get some of these people down to Albany from the country districts, two or three times, to give instruction in the examination of the eyes. My effort has been to impress, so far as possible, the parents and the adults with the gravity and importance

of the situation. I have found that the word cataract makes a great impression; there seems to be a general appreciation of the gravity of cataract, and the mere mention of the word has more effect upon the people than anything else. In the actual work I correct the myopia and every last bit of astigmatism that I can possibly find out about. I try to use atropin at least once, in order to be sure there is no spasm to interfere with the correctness of the results. I have not found it necessary to prohibit the children from going to school, except in a few cases.

Most of them have been allowed to continue at school but the home work has been cut out in many instances. In adult cases I have tried simply to abolish trying work by change of employment. In all, I take great care about the position in which the eyes are used, cutting out stooping postures from low desks and acute inclination of the head. The illumination has also to be considered; many get their retinas irritated from too strong illumination. In many cases the tungsten bulb is too close to the work, just over the head and reflected with a strong glare from the white paper upon which the individual is writing. This happens often to bank clerks and others in commercial employments. A strong tungsten bulb eight inches over the head reflected by a white page is responsible for a lot of wornout eyes.

About half the illumination they get in that way is needed. The light should be mild enough to allow of the pupils being dilated instead of strongly contracted. Decrease of the light, and larger pupils help myopia much.

When correcting myopia in children and young people it is well to have for near work glasses one-half to one-third the strength of the distance glasses, as this keeps the accommodation active and in use. For many of them I use bifocal, but as a rule two pairs of glasses are more comfortable than the bifocals.

There are some specialists who think that it would be a good thing to have special schools and special training for myopic children. But I think it is wise not to go to extremes for we will accomplish more by being moderate. The matter of expense is an important consideration, both in the large city and in the country districts. Special schools would raise the taxes considerably. The school tax is 40 per cent. to 50 per cent. of the gross amount of taxation and any increase would excite much opposition. We should be careful, therefore, not to advise any increase except where it is absolutely necessary.

I have a case—a sad case—which shows that these myopic people are never safe unless kept under observation. A young minister graduated from Yale and from a theological seminary without realizing that he had central choroiditis and posterior staphyloma. The choroiditis extended over a large part of the fundus. He had when I first saw him vision 6/60 without glasses. At the present time with glasses his vision is only about three meters. He has practically no use of his

eyes whatever. Ten years ago when he was thirty-five years of age I watched him two or three years and during that time his vision had been stationary, and yet he lost all that vision without knowing much about it. Now I have him under observation again, once in two months, and I have been able to get a little of his vision back but not much. This shows the necessity of not letting them getting away from observation.

G. W. MACKENZIE: I understand you to say that you gave bifocal glasses with the lower portion weaker?

DR. SCHENCK: Yes.

F. C. SAGE: This is an interesting subject and one that is always with us. The consideration of progressive myopia seems to be inseparable from school hygiene. Dr. S. D. Risley started his work among the Philadelphia school children in 1874. He tested an immense number and found that one-fifth of the children of Philadelphia were myopic. While the examinations were not as complete at first as they were latter, still they gave marked results in the improvement of the eyes of children and the decrease of the myopic conditions. The work was divided up into periods of fifteen years and each successive period showed a lessening percentage of myopia until in the last period recorded it was reduced to eight per cent. It went down from twenty per cent. to eight, and that is a pretty good showing. It shows what may be done when systematic examination of school children is carried out. The good result of such work is proved but the great trouble in most places, and I speak from personal experience, is to get the boards of education to do anything at all. I am a member of such a board and when I first took the position you could not even suggest such a thing as a medical examination without creating immediate opposition. By persistence this opposition was overcome to a certain degree and we put in each principal's room a system of Snellen types prepared for the use of teachers. Dr. Schenck speaks of the uselessness of such tests in a school yet he acknowledges that the examinations made by the teachers were better than those made by the physicians. We found that the teachers could be instructed by several lectures and then do very satisfactory work. They could detect cases of defective sight that were more difficult than ordinary. They noted the defect and recommended that such pupils be sent to the specialist or family physician for further examination. The great trouble was and is that you can not get the family physician nor yet the parents to do anything. No attention is paid to the warning. The answers received are often like that received by a teacher who complained to the parent that little Johnnie needed a bath because he smelled bad; the mother's note said, "Little Johnnie ain't no rose; don't smell him, larn him." The children have no chance to memorize the Snellen types because the superintendent as principal of the school has charge of the cards and the pupil cannot see them until they are given the tests. In that way we get fairly good tests. We have compulsory education

laws and as long as we have that I would like to see compulsory examination of every pupil to ascertain whether they are physically fit to attend school. There ought to be some way of compelling parents to have their children attended to. In my home city we have a young physician who devotes nearly all his time making examinations, going from one room to another. We effected this in spite of opposition owing to an outbreak of diphtheria which gave us an opportunity. We had him appointed to the position so that the superintendent can call him in any time to look over a room. He has been kept busy all the time and we have seen a marked improvement.

G. W. MACKENZIE: Not to disapprove of anything that the essayist has given us I want to make a few remarks or possibly to ask a few questions. Dr. Schenck suggested that it was a good thing to use in some of the myopias full or nearly full correction for distance with weaker minus glasses for near vision, either as bifocals or as separate glasses. I do not see why that should ever be done except in cases of presbyopia; it does not seem to be a rational method to me. I trust he will be able to explain it. The weaker lenses are going to be a strain on the eyes of the patient which the full correction would not be. In myopia the patient does not need to accommodate strongly; he does not have asthenopia as the hyperopic patient does. Therefore it is not the excessive accommodation that makes his trouble, it is the excessive convergence, from holding things too close to the eyes. I would like to ask Dr. Suffa what effect full, or nearly full, minus correction for distance and under minus correction for near things have upon the muscles of the eye? Might it not develop hyperphoria and imbalance? I would like to have him answer that question.

In examination for myopia some of you who were present at the Narragansett Pier meeting will remember that I showed Dr. Howard, of Camden, N. J., with a lenticonus; it was not on the official program: I believe that if we get into the habit of looking for things we sometimes find them when otherwise we would pass cases by oblivious of their existence. We should form the habit of going to the bottom of every case that we examine. I saw my first case of lenticonus in one of the clinics where I was studying. It was so plain that it fastened its features indelibly upon my mind. Shortly after I recognized another case in my private practice and I have since seen at least five such cases in my private practice, so that I believe that the condition is not as rare as imagined; Dr. Howard is now about sixty and his eyes were examined and refracted by Dr. Thomas about thirty years ago. He had a diopter and a half of hyperopia. After a few years he was relatively emmetropic and gradually grew myopic until, when I examined him last, he was seven diopters myopic.

It was essentially a case of progressive myopia, there was no posterior staphyloma. I cite this case only to point out the fact that when examining for myopia we do not want to forget the possibility of lenticonus or even of keratoconus.

W. E. BOYNTON: I think that this society should go on record as opposed to too close work in the public schools, especially for young pupils. I have a small girl in school, she is nine years old and she comes home with a lot of work to be done that involves the use of the eyes for fine work. The strain for fine continuous work must have a bad effect upon the delicate tissues of the eye in the young and we should protest against it.

JAMES A. CAMPBELL: The paper is a very timely one; that myopia is progressive is well recognized. The point, as I take it, that the writer wishes to bring out strongly is the fact that unless wise care is taken of the eyes myopia is fostered and is apt to be progressive. I had a patient who came to me in 1904; examination showed one-half diopter myopic astigmatism but still with good vision. I did not correct the myopia because she was through with school work and did not want to use glasses. A year later a local oculist discovered that she had high myopia and needed glasses. He gave her a pair of strong glasses but she still had trouble and came down to consult me again. I put her for one week upon atropin—four grains to the ounce—and relaxed every vestige of spasm. I then found that the eyes that only four years before had required one-half diopter of myopic astigmatism now required a minus 2.75 s. There was no special indication of prolongation of the anteroposterior axis of the eye. I can recall several cases of that kind. One case had progressive astigmatism in the same way. I can understand that curving of the corneal layers might produce that condition. It is also a possibility to have cases like that which I have related where the progressive character came on, not in childhood but in adult life. At first I could scarcely believe this but I found that it was actually a fact. This is the truth, as I think, that the essayist intended to emphasize. I agree with the suggestion that defective elimination has much to do with eye troubles of all forms. With this for a background, then local congestion from straining the eyes either for fine work or from faulty position would perpetuate the local congestion into a permanent eye trouble. These two factors are at the root of most eye troubles, namely, faulty elimination and local congestion of the eye from strain. In St. Louis a board of physicians has been appointed and paid by the city authorities to examine all the pupils in the city for defective eyes, teeth, ears and noses. I do not see how any one can find fault with such an arrangement for they are prohibited from sending pupils to any particular physician.

EDGAR J. GEORGE: Cases of congenital myopia that I have seen have been in idiots. There is no question in my mind but that it is a hereditary condition; I have traced it from grandfathers through to grandchildren. I have also had cases that were hypermetropic and eventually became myopic. My treatment of myopia is to correct the defect in full under atropin. I use a cycloplegic in order not to over correct. The great danger is in over correcting. I re-examine my

cases every year. It is necessary for a case to have normal accommodation. With this method I have had very fair success. I instruct the parents not to allow the child to lie down to read nor on the floor on their stomach, nor to study in a stooped-over position, such as the use of a too high chair or from a too low desk. The light should always be good and come from above and over the shoulder. The leaning forward of the head causes intraocular congestion and consequently an intraocular pressure that produces myopia or increases it. I have a case of progressive myopia that I have had under observation since childhood who is now a young man and recently completed a theological education; his myopia has not increased in the last two years and he has used his eyes excessively. Dr. Campbell, I think, spoke of myopia increasing at a later age in adult life. I would like to ask if in those cases an examination of the urine had been made; diabetes will cause swelling of the lens and when I have found hyperopic patients becoming myopic I have invariably found sugar in the urine. That might have been the cause in Dr. Campbell's case, or it might have been corneal changes.

DR. CAMPBELL: No examination of the urine was made.

E. T. ALLEN: One cause of progressive myopia has not been mentioned: that is hyperphoria. During the last eighteen or twenty years I have never found a case of progressive myopia without from one to three, and in one instance eight, degrees of hyperphoria; the cure or relief of the hyperphoria by prisms or tenotomy has invariably relieved the progressiveness of the myopia.

W. H. PHILIPS: I am glad to hear the last speaker say what he did. I do not think that I have ever failed to demonstrate from one to three degrees of hyperphoria in progressive myopia and that a moderate correction of the phoria by means of prisms or tenotomy has made it possible to wear a glass which is a full correction for the myopia. Some of these cases show exophoria, and I have gone even further in the matter of correction of convergence with prisms—putting their base in. Of course a different lens is used for close work from what is necessary for far vision. I take up all the convergence with prisms.

GEO. A. SUFFA: Dr. Philips has almost answered Dr. Mackenzie's question. Lenses with a weaker segment for near work in myopia or weaker lenses for near work *would* produce exophoria. I always take into account hyperphoria, exophoria and esophoria and never fit glasses without getting the case as completely free from muscle imbalance as possible. In my opinion one very productive cause of increasing myopia would be found in the uncorrected phorias.

DR. MACKENZIE: Do you think that the wearing of weaker minus lenses than full correction would upset the balance?

DR. SUFFA: Yes, that would often upset the muscle balance; it is generally said and believed that there is weak ciliary muscle in myopia; I have not found that so, myopes often have not only good accommo-

dation but an excessive amount. I recall a case of high myopia in a lady 28 years of age, that can not be called progressive myopia, as there has been no change in the myopia for 13 years. When this case first consulted me there were at that time, and now are, 26 diopters of myopia in each eye; distant vision without glasses is $3/200$ in each eye, with the correcting lenses right vision is $20/70$ — and left vision $20/100$. Full correction is constantly worn with comfort in distant use, and 22 s. o. u. for near use, also with comfort. The young lady has been employed as stenographer in a town clerk's office for over 12 years. Fundus changes are limited to a large posterior staphyloma at edge of disc in each eye, and generally thinned choroid, but no atrophic patches.

PRESIDENT SHEPARD: There is no reason why some individuals should not have longer eyes than the average; it is in accordance with experience and common sense that we should not be all alike. Muscles which are not used inevitably become weaker than those that are used all the time. The same rule applies in the consideration of the muscles of the eye. In my experience the majority of cases of high degrees of myopia show less accommodative power than the average far-sighted eye, and that is what we should expect to be the case from the general rule of muscular development from use. That is what De Wecker used to claim. It is true that we may find, here and there, a case of high myopia with good accommodative power, but that is not the rule. Hence a glass sufficiently strong to demand accommodative power at fifteen feet would add greatly to the work put upon the ciliary muscle if it was not of normal strength. The irritation due to anomalies of the ocular muscles should be taken into consideration. In high degrees of myopia, during convergence, the light rays pass through a prism with the base in. The difficulty in progressive myopia is tissue resistance. The eyes are used excessively for reading and close work during the years of rapid growth in children when they are unequal to the strain put upon them. The tissues are being stretched and strained when they have less power of resistance than they would have in a more mature age. In this way the eyes of the child run through many dangers during the school years. It is far better, in some cases, to take the pupil out of school than to run this risk.

It is a good time to look very carefully for the indications for a constitutional remedy based upon the symptoms of a more general kind than those of the eye. Very often calcarea is needed at this time. The remedy will give them tougher tissues with better resistance. Regulated exercise in some athletic sports involving fresh air will also give much help. After all is said, children with progressive myopia must be individualized just like other patients.

DR. FELLOWS: Our president has summed the subject up very well; one thing he said I want to emphasize and that is not to hesitate to take certain myopic pupils out of school entirely. Take them out of

school but not with the permission to spend their time reading in the public library. It would be a splendid thing, as some one suggested, to take all the myopic children in a community and put them in one school or in one room and under one teacher so that they all could have the advantage of consideration adapted to their failing. I think we could do this if we went about it right. No one could take my child with progressive myopia and put him in a public school. My children are under my control and I would not expose them to the dangers spoken of by the President. If we lecture and inform our patients as we should, I believe that most of them would follow our advice. The longer you stay in one town or in one place the better you can educate your patrons as to the proper care of their eyes and ears. In my opinion we can do much in educating the family physician. Somebody suggested sending these patients to the family physician. I do not believe that that would be of much avail. We all know that we are great men but we do not know the family physician's business. He gives his advice with authority and there is nothing higher in his families than what he says. Strong prisms may produce phorias of various kinds, as has been said.

Occupation is also a great subject: office girls bending over desks or typewriting machines should be dairy maids whose occupation is just as honorable and much safer for the eyes. The boys decide that they want to be engineers or theological students or something else that involves much straining of the eye in close work; we should get busy with the parents and advise them to turn these boys' attention to other things. We as physicians should take pains to explain to patients the evil effects of certain kinds of work and advise them not to go into any business that involves much straining of the eyes. We need not think that we have said the last word or settled the subject of progressive myopia yet.

As our President said: just as in other diseases this is a question of individualization. One case of tuberculosis will be cured by a few doses of the remedy needed, another case by forced feeding and fresh air, and still another will be cured by nothing that you can do for it. The two cases that are cured are cured by different methods. So it is with progressive myopia.

DR. SCHENCK: In order to make the work in schools effective it should be followed up. It is not enough to make a statement to the parent that the child needs attention. In eighty to ninety per cent. of such recommendations no attention is paid to them. If it is followed up with some persistence much better results will be obtained. This is a valuable point to those who are on school boards.

SECRETARY MYERS: Presented by request a resolution about close work in schools. (See page 441—November.)

DR. SCHENCK: I move that these resolutions be referred to the business session.

Seconded.

DR. CAMPBELL: If there is no objection, I do not see why it could not be settled here.

DR. PHILIPS: I am opposed to putting the society on record against a thing that we have no actual information about. If we send out such a resolution as that, the question arises how much knowledge of the facts of the case had those people in that society when they passed judgment? Do they know how much close work is being given to primary grade pupils, and if so how do they know? If we pass that resolution without investigation we are weakening our own influence and are doing wrong. The way to do is to have a committee appointed to investigate the matter and to report the facts so that we can judge of the matter. If they report conditions that require condemnation, then I say condemn them hard.

DR. CAMPBELL: Have you any children?

DR. PHILIPS: I have families with children, and I have children as patients.

DR. SCHENCK: I think that the resolution should not be passed without careful investigation, so that we can if necessary go before a school board and have some weight with it, owing to the accurate information that we acted on. Let us first find out just what is required of the small pupils. Close work is not required for pupils in that grade in the New York schools.

I. O. DENMAN: It should be done, if done at all, in a regular and formal way and not in a haphazard manner. A board of education is engaged in work with children and probably knows what it is doing. To have any effect upon boards of education we must be sure of our facts.

ELLA G. HUNT: Kindergarten teachers have changed their methods very much in the last few years for the better.

DR. FELLOWS: Nobody cares whether we pass this resolution or not: if we pass it nobody will pay any attention to it after we have passed it. Last year we passed a resolution that all railway cars should provide their windows with wired glass to protect the eyes of the public. Have any of you noticed any great change in the windows of cars? The sentiment expressed in the resolution is all right but it will not be effective.

DR. MACKENZIE: Has no action been taken upon this subject by other societies similar to this one? If not, why not have a committee to examine into the matter and make a report so that we may have some data. Then we can act upon the resolution intelligently and join with other societies to make the protest stronger.

SECRETARY MYERS: It makes no difference whether any other society has passed a similar resolution or not. It simply expresses our sentiment upon the subject of close work for young pupils. It is not a criticism upon any school board or upon any particular institu-

tion. It is merely a statement that we as oculists are opposed to close work for children.

DR. MACKENZIE: Do you include in the resolution that our action be printed and spread broadcast or sent to particular schools or spread in the minutes?

DR. MYERS: Certainly, it is for the public information.

E. D. BROOKS: From what I have heard here, and from what I know about the Kalamazoo schools, I am sure that the complaint would not lie against a large proportion of the public schools of this country. There may be a few, here and there, but those few should be taken care of by local men. I myself have children in the lower grades of the public schools and have no fault to find with the way their eyes are handled.

DR. PHILIPS: I move that this matter be referred to a committee of three to report at the business session. Seconded. Carried.

AN UNCURED CHRONIC DIFFUSE SINUSITIS.

DOUGLAS MACFARLAN, M. D.,

Philadelphia, Pa.

J. B., male, aged 52, sallow-faced, delicate and anæmic shoemaker, had been going the rounds of nose and throat clinics for years. His troubles dated from childhood when he had a "chronic catarrh with a thick discharge." As a young man he suffered much from frontal headaches and pains in the antrum regions. At one hospital he had his middle and lower turbinates removed on the right side and a large opening made into the right antrum. This relieved his symptoms for the time, and he was able to breathe better and to keep at least one nostril cleaner and clearer with the syringe. He soon became familiar enough with his condition to wash out his own antrum, which was scarcely ever free from discharge. However he still complained of his "heaviness" in the head and frontal pains, and the stenosis on the left side began to bother him.

When he came under treatment examination showed the evidences of the previous work done on him. The turbinates on the right side had been removed and the antrum was readily accessible. Above and far back on the right side the opening of the sphenoidal sinus was plainly seen; from it and from the region of the ethmoids thin white pus was oozing. On the left side the nares were almost occluded by a deflection of the septum and a large middle turbinate. Pus was pouring over the lower turbinate from above.

Transillumination showed a dark antrum and ethmoid shadow on the left. The right antrum was clear, the ethmoids less so. The right pupil readily illuminated. The frontals were both dark and indefinite. A number of x-ray pictures were taken but were unsatisfactory as to throwing more light on the condition. There was no evidence of bone destruction.

The symptoms being mild (the headaches not severe, no sinus tenderness nor suggestion of serious or active bone disease) the patient was treated symptomatically.

He was also advised to have his septum corrected and the enlarged left middle turbinate removed, to which he ultimately consented. The middle turbinate proved to be a large cystic one, and with it removed better frontal drainage and free breathing space relieved the frontal symptoms temporarily. The ethmoids and sphenoids were curetted as freely and carefully as possible, and every visible focus and pocket of disease outside the frontals was sought out. However the pus still formed in the sphenoidal regions and the frontal symptoms persisted. The patient would not consent to any further operative work on him.

There were yet as resources the frontal sinus rasp and a radical operation. Drainage was now free and continued so.

A variety of treatments were now resorted to. An autogenous vaccine was prepared and given him twice a week, 500 million a dose. The strain was a staphylococcus which had appeared in the smears in nearly a pure culture. The patient seemed to think he was relieved for a while, but the discharge, if it slackened, soon reappeared as free as usual.

Irritants, astringents and antiseptics were used in variety but with only temporary effect. The treatment has now resolved itself into regular spraying, dilating with cocain to aid drainage, and swabbing with a mild stimulating antiseptic—the course of the case remains little changed.

Diagnosis: Diffuse sinus disease of long standing.

1805 Chestnut Street.

HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

DEPARTMENT EDITOR, PHILIP RICE, M. D.,

San Francisco, Cal.

SOME EYE REMEDIES—JOHN L. MOFFAT, M. D.

CLEMATIS ERECTA.

Objective.—Myosis. Eyes red and glittering, hot and dry. Inflammation of the whites.

Subjective.—Photophobia; great sensitiveness to cold air, light and bathing. Biting burning in the eyes as if fire streamed out of them. Dryness and heat, compelling to close the lids. Smarting, rawness. Pain in middle of left eyeball. Pressure in orbits on moving eyes.

Clinical.—Has been useful in iritis, keratoiritis; scrofulous and mercurial affections.

COCCULUS INDICUS.

Objective.—Lids inflamed. Sclera red, cornea hazy. Myosis.

Subjective.—Bruised or pressive pains in eyes; hard to open lids, < at night. Pain in eyes as if torn out of head.

Vision.—Right hemianopsia; can see only left half of the line when reading.

Characteristics.—A prostrating nausea. The cerebrospinal system is debilitated.

Clinical.—Asthenopic headaches, occiput and neck. Car-sickness; sea-sickness.

COLCHICUM AUTUMNALE.

Objective.—Inflamed eyes. Lacrimation, < open air. Lids in constant motion.

Subjective.—Violent tearing pains in the eyes.

Characteristic.—The smell of food is very repugnant, even to nausea.

Clinical.—Rheumatic gouty cases, particularly with debility; in this case beware of large doses.

COLOCYNTH.

Subjective.—Pains sharp, *screwing*, cutting, boring, > by pressure.

Clinical.—Neuralgia. Useful also in controlling the pains of iritis and glaucoma; these may be severe burning, sticking or cutting, extending from the eye into the head and around the eye, or else an aching pain going back into the head, usually < on rest at night and on stooping, and > by *firm pressure* and walking in a warm room. Sometimes there is on stooping a sensation as if the eye would fall out.

The *Medical Press* (London) quotes in the *Homœopathic World*, Feb., 1913, recently said editorially: "It must be admitted that the old-time prejudice against homœopathy, largely born of ignorance, is

gradually breaking down in the light of modern discoveries, for, after all, the whole of serum and vaccine treatment is but an adaptation, or rather an illustration, of the homœopathic law. * * * An impartial scientific investigation of the whole system under the auspices of a committee composed of equal numbers of homœopathic and other practitioners would be most desirable with a view to establishing, or otherwise, the claims of a method of medical practice which has stood the test of a century and is still flourishing today in spite of all opposition."

JOURNAL CLINIC.

Save the Tonsil Capsule.—The function of the tonsil, I consider, from a physiological standpoint is similar to the tufted button of upholstery.

We all remember how solid and firm the old tufted button seat of grandmother's chair was, and in what an incredibly short time that old seat went to pieces when we cut out the germ laden little woollen tuft, answering to the bug-collecting tonsil. Finally when, having severed the string that held the tuft to the seat, we tried to put a new string to the new ruined and always bulging seat—and tried again in vain—how soundly we were trounced upon being discovered. This is just how I look upon the tonsil, practically, and just what I meant when I wrote that the tonsil is the regulator of pillar action and adjustment.

I meant that it is a real old grandmother's tufted button; if the tuft is loose, frowsy or buggy, of course amygdalokelyphine the tuft, but for goodness sake save that purse-string capsule—or the adjustment and function of your human upholstery will be ruined, switched into undreamed positions by infection, suppuration and cicatrization.

FRANK E. MILLER, M. D.

Laryngeal Akinesis.—A lady patient, 32 years old—not a bleeder—called upon me to day; a month ago she was operated under ether. One tonsil had been completely enucleated with capsule, leaving the other capsule intact; a nine hours' hæmorrhage ensued which, although the tonsil was sewed up with individual stitches, did not stop until after twenty minutes of finger pressure on the stitched tonsil. She lost twenty-four pounds in that twenty-four hours. After the operation she could speak only in a whisper.

On this her first visit to me I painted the tonsil, palate, back of tongue and throat with a 10 per cent. solution of ferri sesquichlorid, then had the patient sing "Bah," "Mah," "Nah" and "Ka-ng;" the voice came out with much strength and the nasality due to palatal and laryngeal akinesis was immediately gone, to the astonishment not only of the patient but of three physicians who were watching the case.

FRANK E. MILLER, M. D.

General Anesthesia With Ethyl Chlorid.—After many years' experience with this agent the author is of the opinion that by continuous administration of small amounts of it, using a special but simple technique which he describes, general ethyl chlorid anesthesia may be prolonged beyond the customary short period without any danger. The anestheticizer should have at hand one tube of 50 c.c. or several of 10 c.c. of ethyl chlorid, provided with the usual fine spray tips employed for local anesthesia. A compress or handkerchief folded to make 4 thicknesses, broad enough to cover the nose, mouth and chin is placed over the face in the form of a conical mask, the margins being closely applied to the skin surface while the center, upon which the ethyl chlorid is to be sprayed, is kept a few centimeters from the tip of the nose.

The spray tip of the tube is placed over the compress, the tube itself lying in contact with it and its other extremity resting on the patient's forehead. To prevent too rapid loss of ethyl chlorid, another compress is placed completely over the tube, the hand of the anesthetizer holding it, and the first compress. By drawing down the lever at the tip of the ethyl chlorid tube the anesthetizer then sprays the anesthetic on the center of the compress, causing it to be inhaled regularly at each inspiration. The spraying is continued until anesthesia supervenes. If the operation is to be performed in the mouth or nasopharynx, compresses and tube are quickly removed, while if it is to involve other portions of the body, the inhalation is continued as before until the operation has been completed or a short period before this, analgesia often persisting a few minutes after the administration of the drug has been stopped. The amount of ethyl chlorid generally used by the author has been 8 to 30 c.c., in a few cases 50 c.c. The longest anesthetics attempted were twenty to thirty minutes, and the usefulness of the method is probably limited to operative procedures that can be carried out within this period of time, though Boureau, using larger amounts, has been able to prolong the anesthesia even to forty-three minutes. Vanverts (*Bulletin de l'Académie de Médecine*, June 10, 1913).—*Mo. Cycl.*

A traumatic corneal ulcer, fairly extensive, in the prepupillary area of the right eye and accompanied by a moderate amount of ciliary and conjunctival injection.

This steadily got worse despite treatment: a few days later he commenced to have pain in the left (uninjured) eye, suggestive of sympathetic ophthalmia. There was intense ciliary and conjunctival congestion, marked iridocyclitis and severe photophobia, pain and chemosis. There was a large quantity of pus in the anterior chamber and the whole aspect suggested acute infection; so much so that despite the fact that pus in this region is usually sterile, it was decided to perform paracentesis.

Next morning, therefore, under a general anæsthetic, the anterior chamber was opened at the lower margin of the limbus, a large quantity of pus evacuated, and was washed out with saline; this was repeated on the following day. The patient made a good recovery for some time, and ultimately, after the removal of several carious teeth, was discharged.

On dismissal there was a slight central nebula which is rapidly clearing up under the influence of ung. hydr. ox. flav. dil. c. atrop. with merc. sol. and bell. internally. There are no remaining traces of iritis, no synechiæ and only slight conjunctival injection. The pain and discomfort have also gone from the sound eye, which rather negatives the idea of sympathetic.

The interest of this case lies in the somewhat unusual treatment, for it is generally advised to allow pus in the anterior chamber to absorb. The pus in this case swarmed with pneumococci, which organism is

very frequently found in these eye conditions. If left it would undoubtedly, to my mind, have resulted in a panophthalmitis with total loss of the eye and probably sympathetic ophthalmia.—*Hom. World*.

ABSTRACTS.

Technique of Laryngectomy.—Both laryngectomy at one sitting and laryngectomy in two sittings according to the technique of Glück, in which the trachea is first cut below the neoplasm and sutured to the skin, and the larynx excised later, have been abandoned by the author, owing to the difficulty frequently met with in establishing permanent union of the tracheal cut end with the skin, loosening and descent of the trachea occurring, the wound becoming infected, and the patient succumbing to bronchopneumonia. In order to avoid this complication Durand has adopted the plan of not cutting the trachea completely across, but favoring retention of its normal position by severing only the anterior portion of the canal and allowing its normal adhesions with the œsophagus to remain.

At the first sitting, under local anesthesia whenever practicable, a rather low transverse incision is made over the trachea. Preferably a small inferior flap should be made. The trachea is then incised transversely between two of its rings, a portion of the upper of these rings removed, and the skin sutured to the edges of the (incomplete) tracheal opening. Slight temperature elevation occurs for a few days, but this soon subsides, and some time after the laryngectomy is performed, usually under general anesthesia, induced through the trachea. With the aid of Trendelenburg's apparatus, an incision of the shape of a reclining H is made, one horizontal cut being at the lower border of the hyoid, the other one centimeter above the tracheotomy opening, and both incisions extending from one sternomastoid muscle to the other. The vertical incision is made slightly to one side of the midline. The larynx is then freed on its lateral aspects and detachment of its posterior surface begun. The pharynx is now opened below the hyoid bone, the laryngeal orifice drawn forward, the pharynx detached from the larynx beginning at the retroarytenoid region, then lower by means of the trachea, which is cut at the level of the artificial opening. The pharynx is then closed, the two skin flaps brought into place, and the larger one sutured at its lower margin to the posterior part of the trachea. The skin is adjusted and suitable drainage instituted. In two successive cases of laryngeal carcinoma in which this technique was followed by the author, complete success was met with.—*Lyon Médical*, June 8, 1913.—*Abs. Mo. Cycl.*

Chloroform Anesthesia and the Adrenal Glands.—Experiments upon guinea pigs showed that prolonged chloroform anesthesia causes changes involving both the cortical and medullary portions of the adrenals. In the former the distribution of the fat is altered, probably also its amount and possibly its nature. After the anesthesia the fat is seen to have spread inward from its normal situation, reaching nearly

to the inner reticular zone of the cortex. In the medulla the chrom-affine property and the epinephrin are found to have diminished or even entirely disappeared.

Alterations in these glands play a part in certain of the fatalities following chloroform anesthesia, as well as in operative shock, the manifestations of which—asthenia and feeble pulse—are symptoms of adrenal insufficiency. Sudden unexpected deaths occurring in the evening, on the morrow or on the third day after an operation, are frequently attributed to embolism. But a patient succumbing to embolism will cry out, complain of intense pain, or present asphyxial phenomena, sometimes convulsions, whereas in many postoperative deaths no such happenings are witnessed, the patient being frequently simply found dead in the morning and showing tuberculous involvement of the adrenals at autopsy.

For these reasons one of the authors has for the last three years been giving subcutaneous injections of epinephrin regularly to all cases operated. The dose used is 0.0004 g. for ordinary operations and 0.0006 g. for those involving considerable traumatism. At first the injection was given at the end of the operation, later at the start of the anesthesia. After experience with over 1000 cases this author thinks it justifiable to affirm that the giving of epinephrin in this way is of great advantage to operative cases. It regularizes the narcosis, and it lessens or even in most instances eliminates operative shock. He is also convinced that it is capable of preventing certain sudden post-operative deaths which appear to be due to adrenal insufficiency. Where a patient remains asthenic for twenty-four hours after the operation, further injections of 0.0004 g. of epinephrin may be given.—Delbert, Herrenschmidt and Beauvy (*Revue de Chirurgie*, April, 1912).—Abs. *Mo. Cycl.*

Hydrogen Peroxide in Ophthalmology.—The use of hydrogen peroxide in various eye conditions is warmly recommended by P. A. Harry. In purulent conjunctivitis, *e. g.*, gonorrheal and membranous, it gives very satisfactory results. In the former case it should be used in the form of a warm douche (40° C. or 104° F.). The peroxide is not decomposed at this temperature, while the gonococci are destroyed. Whereas silver nitrate is contraindicated in corneal ulcerations, hydrogen peroxide is of great use. It disinfects the ulcer and, owing to its peculiar action on the toxins generated, iritis and hypopyon are less frequently noticed in cases of pneumococcal infection.

In blepharitis hydrogen peroxide can be recommended for removing the crusts. In the pannus associated with trachoma or chronic corneal conditions, after the operation of syndectomy has been performed, a probe tipped with cotton-wool and saturated with the drug should be rubbed into the gap from which the conjunctiva has been removed. This measure, followed by the instillation of dionin and the injection, sub-conjunctivally, of salt solution, has brought about removal of many dense nebulæ.

Lacrimal obstruction and purulent infection of the lacrimal sac are greatly benefited by hydrogen peroxide; indeed, an obstruction that resists everything else will give way before this agent. Should there be much stretching of the sac wall during the syringing, it will be necessary to warn the patient that there may be some puffiness of his eyelids and the inner corner of his eye for from twelve to twenty-four hours afterward. This disadvantage can be avoided by using as little force as possible in washing out the sac; when much of the fluid has escaped into the tissues, the edema is extensive and may last several days. This does not apply to its use immediately before the operation of excision of the sac, when it is desirable to remove every trace of pus from its interior. (*Prescriber*, June, 1913).—*Mo. Cycl.*

Tubercular Meningitis.—Thanks to the electric ophthalmoscope, examination of the fundus—particularly in babies with this disease—is very easy, in five minutes or less. A weak solution of atropin was always instilled. Yet even then Marple's figures were 5 per cent. or less until, in 1912, he instituted *frequent* examinations by the house physician as well as by the author and his assistant. In the Baby's Hospital (New York) every case is now examined several times a day until tubercle is discovered in the fundus. Of 13 consecutive cases the examination was positive in all—100 per cent.—confirming Carter and Stephenson's surmise that frequent examinations would make the percentage higher than their 50 per cent. The ophthalmoscope is a valuable diagnostic aid even in these days of lumbar puncture. In four cases this ophthalmoscopic diagnosis was made before the laboratory report was received, and in one case when the latter was negative. In not one instance did the author find exudate on Descemet's membrane in cases of tubercular meningitis with tubercles of the choroid.—W. B. Marple, *The Ophthalmoscope*, Oct., 1912.

The Sliding Flap Cataract Operation.—Under cocain and adrenalin, with forceps and blunt curved scissors, the conjunctiva corresponding to the upper half of the corneal limbus is dissected from the sclera for 8 to 10 mm. upward. On each side of the cornea a silk suture is introduced beneath the conjunctiva 2 mm. below the horizontal meridian of the cornea and is carried beneath the detached conjunctiva for about 10 mm. upward so that when the two sutures are tied (after the cataract extraction) the detached conjunctival flap glides over the corneal wound and covers about the upper fourth of the cornea. The threads are cut close to the knots so that they will not irritate the cornea. The corneal section is at the limbus. A drop of physostigmin oil is instilled and the eye bandaged for 48 hours. By that time the anterior chamber is reformed and atropin instilled as necessary. The sutures usually drop out about the fifth or sixth day, if not they may be removed. The conjunctiva gradually retracts. Sometimes at the end of 48 hours it has receded from the cornea; at other times it covers the cornea until the fourth or fifth day. This flap protects against infection and iris prolapse, pushing the anterior lip of the

wound against the posterior like a splint. In a case where the spatula failed to reduce the iris, the pupillary margin of which protruded in the wound, the moment the second knot was tied the iris resumed its normal position with a round pupil. The dissection of the conjunctiva does *not* entail any nutritive disturbance of the cornea. This prolongs the operation maybe a couple of minutes. There is less astigmatism than without it. Examine the eye daily; if toward the third or fourth day there is suspicion of corneal ulceration the sutures should be removed at once. Webster Fox has adopted this method in simple extraction, as have others.—Van Lint, *The Ophthalmoscope*.

Tracheal insufflation narcosis is specially indicated in operations about the oral and nasal cavities where inspiration of blood and operative debris would not only hazard the patient's life but also interfere with the operator. The constant return flow of air current makes aspiration of foreign mouth contents practically impossible.

Reports of over five hundred cases of insufflation in man go to prove the absence of harm from the introduction of the tube. Collapsed alæ nasi, recedent tongue and jaw or paralyzed epiglottis are the obstructions which not only cause asphyxia but also interfere with the inspiration of sufficient ether into the lung to produce the desired anesthesia. Consequently the anesthetist increases the quantity of ether, raises its concentration to so high a degree that a vicious cycle of toxæmia of anesthetic and too superficial anesthesia is the result.

Tracheal insufflation anesthesia is considered to furnish constant minimum dosage of anesthetic, insures perfect oxygenation of the blood, carries on respiration without obstruction from the dead space between the teeth and epiglottis and through its positive intrapulmonary pressure allows intrathoracic surgery, free from acute pneumothorax.

Woolsey's apparatus consists of two bottles, the first containing water into which three delivery tubes convey the air from the foot pump and the nitrous oxide and oxygen from their respective tanks. These tubes act as sight feeds, the gases bubbling through water at a rate always controlled by the valves on the tanks or the force of the pumping. In the center of the top in one bottle is the mercury manometer and safety valve which registers its twenty millimeters of mercury and then blows out, thus preventing any possible overdilatation of the lung from spasm of the glottis or similar obstructive accident. After the manometer does blow out the mercury resumes its position and is ready to again register the pressure. It is one of the essential factors in a safe intracheal insufflation apparatus.

The second bottle contains the ether. A valve on its top is so arranged that the gas current can be directed all across the bottle to the tracheal tube, all through the ether or any part either way, thus allowing any desired percentage of ether to be carried into the tracheal tube or none.

The water in bottle one is hot therefore heats, filters and moistens the insufflated gases before they reach the lung. When simple ether vapor is to be used, the foot pump supplies the pressure of air. When nitrous and oxygen are to be used the valve on the air tube is shut off and the gases flow direct from the tanks. On the nitrous tank is placed a pressure reducer, in order that freezing of valves and too great initial pressure of gas stream may not interfere with constant flow of nitrous through the bottle.

Tracheal insufflation seems to offer an ideal field for nitrous oxid and oxygen, on account of first, the elimination of all mechanical obstruction to respiration between the mouth and the trachea, second, the exhibition of nitrous under slight positive pressure direct to the pulmonary capillaries, third, the partial elimination of the diluting nitrogen of air in the lungs by the comparative apnoea present, and fourth, the absence of the cumbersome face mask of ordinary use.—*L. I. Med. J.*—Jan., 1913.

Hexamethylenamine and its decomposition product, formaldehyde, are excreted in the urine. In 1908 Crowe demonstrated that it is excreted in *practically all the body fluids* within a short time after its administration by mouth.

It has been demonstrated that hexamethylenamine is excreted by the mucous membrane of the *middle ear* where, as elsewhere, it will inhibit the growth of bacteria. Hence it is recommended as a prophylactic (40-60 grs. daily) against otitis complications of scarlet fever. It has frequently been noted (75 grs. daily?) to change chronic ear discharge in amount and character.

The drug is also excreted into the *nasal accessory sinuses*; hence given sufficiently in early stages of acute coryza it may prevent chronic infecting of these cavities, especially of the antrum. Gradle and others have found that it is excreted into the *anterior chamber of the eye*.

In Crowe's experience, the toxicity of hexamethylenamine is not very great. The administration of doses of 200-300 grains daily in adults and 100-125 grains daily in children for four or five days have been repeatedly observed by him. In none of these cases were toxic symptoms noted, provided that the drug was sufficiently diluted. Few patients are, however, susceptible to the drug in doses of even 5-7½ grains. In a series of 95 cases—75 grains a day for ten days—painful micturition and hæmaturia occurred in only seven cases. Other untoward effects were skin rashes, gastric irritation, and catarrh of the mucous membranes. These usually arise from insufficient dilution of the drug and disappear rapidly when diuresis is established.

According to Crowe, the best way to administer hexamethylenamine to very sick patients is to dissolve 50-100 grains in one liter of normal saline solution and give this throughout the day, by the drop method, per rectum. For those who can take nourishment, 2 or 3 grains are

added to each ounce of fluid taken by the patient, thus 60-100 grains a day may be given without the patient's knowledge and without producing gastric irritation or other untoward symptoms.—*Johns Hopkins Bull.*, Sep., 1912.

Unusual Bullet Wound of Frontal Sinus.—A young girl of 18 was shot while examining an old pistol, the end of the weapon being about a foot from the face. She was momentarily stunned but did not lose consciousness; the upper portion of the face was considerably blackened. About half an inch above the root of the nose and slightly to the left of the midline was a clearly made bullet wound. In less than one hour from the time of the accident, under ether anesthesia, the wound area was shaved and cleaned and a vertical incision $1\frac{1}{4}$ inches long was made over the wound. The point of entrance through the anterior wall of the frontal sinus was rongeured to a size sufficient to explore the sinus. In the posterior wall of the sinus was found a similar but somewhat larger opening, irregular, and with comminuted edges. Wedged in the broken fragments were numerous hairs. Lying in the center of this posterior opening and on the uninjured dura mater was found a flattened lead bullet of about .32 caliber. This, together with all loose bone fragments and hair, was removed and the wound partially closed about a loose gauze drain. Recovery was uneventful. The patient was kept in bed for a week and her case was treated as one of cerebral concussion. The wound was dressed with continuous saline wet dressings. Temperature never rose above 99° F., and the wound healed without suppuration. There were no signs of meningeal irritation.

The case is unusual chiefly because of the fact that both bony walls of the frontal sinus were completely penetrated but the dura was uninjured. It is instructive in showing the good results obtained from immediate exploration of a bullet wound not giving signs of intracranial injury, a wound which if treated expectantly would unquestionably have suppurated and would not have healed without removal of the foreign body.—*J. A. M. A.*, Aug. 13, 1913.

Acute Corneal Staphyloma.—Epinephrin relieves tension in acute glaucoma. Experimentally it has been found to reduce the formation of the aqueous humor in animals. Pontius used the drug in acute staphyloma of the cornea (so frequently seen in ulcerative keratitis) instead of puncture and a pressure bandage or subsequent partial excision of the cornea. He reports 6 cases in which excellent results were obtained.

In a patient with cornea bulging 3 mm. as a result of previous ulcerative keratitis, a 1 to 1,000 solution of epinephrin was instilled and marked relief afforded within an hour. The patient was directed to instil this three times a day. Upon his return, two days later, less bulging of the cornea was noted, and at the end of four weeks it had entirely disappeared.

In another case, in which the cornea has sloughed away almost to Descemet's membrane as the result of a lime burn and was beginning to bulge, the instillation of epinephrin three times daily caused the bulging to disappear within two days. Two months later the cornea was very hazy, but there was no semblance of ectasia.

In a case with corneal perforation accompanied by prolapse of the iris, epinephrin was used in addition to the regular treatment. The iris was freed and no bulging followed.

There were no failures when the epinephrin solution was used as directed. The adrenal active principle has no specific effect upon the corneal tissue, but reduces staphyloma by constricting the arterioles, thus relieving the pressure in the lymph areas, reducing the intraocular tension, and allowing resumption of normal form on the part of the cornea.—*N. Y. Med. J.*, Sept. 28, 1912.

Nasopharyngeal Polypus Mistaken, and Operated Upon, for Adenoids.—Two cases. A boy of 16, and one of 6 years, each gave a history of nasal discharge and mouth breathing. In both cases the growth recurred. The tumors originated in the nose and extended backward into the pharynx; in parts appeared similar to nasal polypus, in other parts appeared to be denser, more fibrous. The second case had nervous symptoms and choreic movements, which the author found reported in two other cases of pharyngeal polypi. Differential diagnosis is important, because these tumors have a great tendency to bleed causing difficulty in operation.—*Butt, Penn. Med. J.*, Aug.

Vincent's Angina.—Signs distinguishing it from lacunar tonsillitis are: 1. Absence of fever. 2. Pain more localized on affected side, and is severe, lancinating. 3. General malaise and physical exhaustion very marked.

Treatment.—First perform gentle curettage of the tonsillar crypt involved. Then apply 12 per cent. silver nitrate solution.

Treatment of Eye Injuries.—In simple abrasions of cornea: 1. Irrigate conjunctival sac thoroughly with normal saline or boric acid solution. 2. Drop argyrol in eye. 3. Fill conjunctival sac with a sterile medium consisting of petrolatum, 5vj (180 g.); mercury bichlorid, gr. j (0.06 g.), and sodium chlorid, gr. v (0.3 g.). Where cornea already infected and ulcer present, sterilize area with phenol, removing excess with alcohol; or else, touch lightly with platinum probe at red heat. In wounds of cornea: 1. Cleanse eye thoroughly. 2. Cut off any projecting iris. 3. Drop in atropin and argyrol. 4. Fill with sterile petrolatum. In burns of eye: 1. Fill with sterile petrolatum. 2. Move eyeball and lids frequently to prevent adhesions. Where sclera wounded: Draw conjunctiva over wound and stitch together.

Scarlet red, 1 per cent. in petrolatum or petrolatum and lanolin equal parts, was found to promote rapid healing in corneal or conjunctival abrasions, wounds or burns. A minute portion of the ointment is placed on conjunctival surface of everted lower lid and a pad and

bandage applied, once daily or on alternate days. Atropin also to be used if indicated.

Severe neuralgic pain over the bridge of the nose indicates pressure on the anterior ethmoidal nerve, possibly due to a high deviation of the nasal septum [?].—*A. J. of S.*

An easily removable packing introduced for epistaxis. Insert a rubber finger cot into the nose, hold it open with clamps and pack the gauze into this.—*A. J. of S.*

Many a distressing frontal headache may be relieved by reducing the hypertrophy of a middle turbinate, preferably by streaking with trichloroacetic acid.—*A. J. of S.*

When a large amount of pus can be aspirated from the ear the suppurative process has extended beyond the tympanum, and mastoid operation is indicated.—*A. J. of S.*

Argyrol for long-standing cases of chronic catarrhal otitis media that have resisted usual measures, cocaine parts, insert fine catheter into middle ear, and with syringe inject through it 5 to 10 minims of 10 per cent. fresh argyrol solution. Causes inflammatory reaction and pain for forty-eight hours, but hearing is markedly improved.—Hays.

Laryngeal Tuberculosis.—Submucous cauterization found to heal 70 to 85 per cent. of cases. Performed with electric cautery. Easier than curettage, and there is no bleeding. Not suited, however, for superficial ulcers on posterior wall, particularly those on the cords, which do better on the old method of lactic acid applications.

To relieve dysphagia, place on tongue 0.3 to 0.4 g. (5 to 6½ grains) of dry anesthesin powder. A few movements of deglutition, without previous admixture of saliva with the powder, cause it to descend into contact with diseased areas covering entrance to larynx, and in a few minutes patient can swallow without distress. Measure can be repeated three or four times daily for several weeks.

Quinsy.—Early probing advocated, in order to drain pus accumulation at its inception. With aid of reflected light and tongue depressor, the tonsillar fossæ, especially upper ones, are entered in turn by means of a tonsil slitter or probe. Where bottom appears soft, rounded point of instrument is pushed deeper into tissues, capsule pierced and peritonsillar space entered. The small amount of pus thus evacuated gives a sense of relief and infection stops. This can be carried out in about 8 out of 10 cases. It is practically painless and bloodless.—*Abs. Mo-Cycl.*

Acute Sinus Suppuration.—Apply 4 per cent. cocaine solution on cotton applicator passed between end of middle turbinate and nasal wall. Follow by a cleansing alkaline solution and an oily spray containing menthol. To reduce pain and promote drainage: Hot, moist applications over whole face. Salicylic preparations, acetphenetidin, and quinine, to be used as indicated. Free catharsis. Irrigation of frontal or maxillary sinuses unnecessary unless there is trouble in antrum traceable to carious tooth. Vacuum treatment by negative air pressure often useful.—Lemere.

BOOK REVIEWS.

THE LABYRINTH. By ALFRED BRAUN, M. D., and ISIDORE FRIESNER, M. D., both of New York. Cloth, 10"x7"x1 1/8". 250 pages with 50 figures in the text and 34 half tones on 32 plates. \$4.00. New York. Rebman Co., 1913.

An especially valuable, up to date, monograph upon the subject of most interest just now to aurists. This is "an attempt" to give the basic truths regarding labyrinthine disease which have been established beyond doubt.

If we should characterize this work with one adjective, that would be "explicit." The text illustrations are lucidly diagrammatic and the half tones are enlarged photographs of the field of operation devoid of unessential details. The six chapters treat of anatomy, physiology, methods of examination, pathology, symptoms of labyrinthitis and treatment of labyrinthitis. The technique is given and illustrated of Hinsberg's, Richard's, Jansen's and Neumann's operations. Ten pages are devoted to a bibliography, two to an index of authors, and four to a double column index.

"After doing a radical mastoid in the presence of a circumscribed labyrinthitis, the posterior wound may be left open so as to be ready to do a labyrinth operation if a diffuse suppurative labyrinthitis intervenes.

"If a labyrinth operation has been done, the wound should be left open until all danger of intracranial extension is past, when the posterior wound is closed and a meatal flap made. The flap is made just as in an ordinary radical mastoid operation, and the dressings are done in the usual way.

"In cases of labyrinthine empyema where a labyrinthotomy has been done, the radical cavity heals just as quickly as in an uncomplicated middle ear suppuration. In labyrinthine empyema with superficial paralabyrinthitis, a labyrinthotomy is apt to be followed by a granulating spot on the inner tympanic wall, which lasts for an indefinite time.

"When a resection of the labyrinth is done, the rapidity of the healing depends upon the thoroughness of the removal of diseased bone in the petrous pyramid."

VOICE PRODUCTION IN SINGING AND SPEAKING BASED ON SCIENTIFIC PRINCIPLES. By WESLEY MILLS, M. A., M. D., F. R. S. C. J. B. Lippincott Co., Phila. and London, 1913. \$2.00, net.

The fourth and enlarged edition adds new material of value. It is written by a physician who thoroughly understands the scientific side of his subject and also appreciates the esthetic side. Although a

scientific work, it is plain enough to be comprehended by all. Emphasis is placed upon general health as the basis for good voice production and specific directions are given with regard to rest, diet and prevention of colds. Methods of breathing are treated at length. Numerous illustrations supplement the practical presentation of the physiological and mental accompaniments of speaking and singing, while quality of tone, register of voice, methods of production and enunciation are carefully explained, and the right and wrong clearly contrasted. Not enough suggestions are given as to exercises for development or correction. As Dr. Mills understands music thoroughly—as evidenced by his boldness in criticising Wagnerian operas—more attention is paid to the singing than to the speaking voice. The methods of various musical authorities are contrasted and reasons given for the acceptance of certain opinions. Speakers, and particularly singers, would gain a valuable suggestion from this book as to the care and the use of the voice.

MISS P.





